Determination of Public Land (Rangeland) Health for 65021 HAYSTACK MTN

The Record of Decision (ROD) for the New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management (dated January 2001) adopted three Standards for Public Land Health. These are (1) Upland Sites Standard, (2) Biotic Communities, Including Native, Threatened, Endangered, and Special Status Species Standard and (3) Riparian Sites Standard.

The ROD also established a process for the BLM Field Offices for the implementation. Through a public participation process, the Roswell Field Office developed and adopted indicators to use in conjunction with existing monitoring data to assess these Standards.

Field assessment worksheets and other available data which evaluate the local indicators, were completed for this allotment. Based on the assessments, it is my determination that the Public Lands within the Haystack Mtn Allotment #65021 meet the Upland Sites Standard and (2) Biotic Communities, Including Native, Threatened, Endangered, and Special Status Species Standard. There are no Public Land riparian areas on this allotment, therefore this Standard will not addressed.

/s/ T. R. KREAGER	09/22/2003
Assistant Field Manager	Date

Standards of Public Land Health
Evaluation of 65021 HAYSTACK MTN Allotment
[05/16/2003]

The NM060 Field Office conducted rangeland health assessments at ten study sites within 65021 HAYSTACK MTN. The assessments looked at the Soil/Site Stability, Hydrologic Function and Biotic Integrity indicators within the vicinity of each study site. Existing monitoring data was incorporated into and in support of the field assessment. The summary of each assessment is attached and shown in the following table.

Study Area or Assessment Area	UPLAND			BIOTIC			RIPARIAN		
	Meets	Monitor an Indicator	Does Not Meet	Meets	Monitor an Indicator	Does Not Meet	Meets	Monitor an Indicator	Does Not Meet
65021-#1 - PRIVATE-D063	X			X			N/A		
65021-#1-D056 (*)	X			X			N/A		
65021-#2-D057 (*)	X			X			N/A		
65021-#2-PRIVATE-D064	X			X			N/A		
65021-#3-D058 (*)	X			X	*		N/A		
65021-#4-D059	X			X			N/A		
65021-GRIFFEN EAST-D052 (*)	X			X	*		N/A		
65021-HDQ-D062 (*)	X			X			N/A		
65021-N. BREAKS-D060 (*)	X			X			N/A		
65021-S. BREAKS-D061 (*)	X			X	*		N/A		

Twenty-two (22) indicators for Rangeland Health were evaluated for the Haystack Mtn. allotment #65021; 10 of these assessed soil/site stability, 11 assessed hydrologic functions and 13 assessed biotic integrity. These qualitative assessments along with quantitative information from long-term monitoring studies on 10 study areas, were utilized to assess the rangeland health of the public land within the allotment. These quantitative evaluations were performed by the Roswell Field office staff starting in the early 1980's. These included ground and vegetative cover and composition, production, frequency, and ecological condition as calculated from these collections which have been scheduled approximately every 5 years.

Ten study sites/trend plot locations were evaluated. Each site corresponding to a different pasture. There are 2 private pastures/sites on the allotment. Each site is a SD-3 Sandy ecological site with gyp outcrops from the Seven Rivers geomorphological formation. The #1 Private pasture rated all indicators in the None to Slight to Slight to Moderate categories with the exception of invasive plants which rated in the Moderate category. Mesquite (Prosopis glandulosa) is scattered throughout the site. The #2 Private also exhibited all indicators in the None to Slight to Slight to Moderate category, with the exception of annual production and invasive plants, which rated in the Moderate category. Annual production showed only 50-60% of potential, while invasive plants being comprised primarily of mesquite. The site at present, is currently grazed by livestock, but at a very conservative rate. The Hollomex-Reeves-Milner complex is the soil phase on #2 Private, and the overall ocular evaluation shows the site to be in good condition, with threeawn (Aristida spp.) and black grama (Bouteloua eriopoda) exhibiting seed head and/or tiller formation.

Pasture #1 is a Pajarito-Bluepoint soil phase with mesquite representing the major shrub component. This is an eroded soil, generally displaying a higher percentage of bareground ground cover as oppossed to others included in this ecological site with a Sandy/Deep Sandy SD-3 classification. Gulleying and hummocks are common with this soil, particularly in the Bluepoint. These soils are excessively drained and have a low water-holding capacity. All indicators rated in the None to Slight to Slight to Moderate category except 1. Invasive plants rated in the Moderate to Extreme category with mesquite scattered throughout the site. The mesquite canopy at present has had limited impact on perennial grass production or these plants' ability to reproduce. Similar ratings also were recorded at the #2 pasture, with invasive plants common throughout the site for a Moderate to Extreme rating as well.

Pasture 4 rated in the None to Slight to Slight to Moderate category. The only indicator rating in the Moderate category was wind-scoured blowouts, and/or depositional areas. There are a few mesquite dunes but infrequent. The south transect line appears to be headed towards a draw where there is an occurrence of more shrub and perennial grass production. The distance from the trend plot to the draw is of considerable distance however and presents a none factor when it comes to invasive plants, which rated at the Slight to Moderate category.

South Breaks Pasture is an ecological site with a Pajarito/Bluepoint (PBB) soil phase. This is an eroded soil. generally, displaying a higher percentage of bareground as oppossed to others included in this ecological site with a Sandy/Deep Sandy SD-3 classification. Gulleying and hummocks are common with this soil, particularly in the Bluepoint. These soils are excessively drained and have a low water-holding capacity. This pasture rated Bareground in the Moderate to Extreme category. Although the current bareground ground cover of 70%, substantially exceeds the upper range of the Ecological Site Description (ESD), which is at 40%, the long-term datum indicates an average of 54%, with a range from 43-73%. This allowed the rating from scoring in the Extreme category. Mesquite domination is heavy on this site and produced a rating in the Extreme category for invasive plants. There are a few scattered sand sage (Artemesia filifolia) plants on this site also. Threeawn (Aristida spp.) is the dominant perennial grass on site with dropseed (Sporobolus spp.) occurring in lesser amounts; resulting in a slight modification in Functional/Structural groups which rated in the Slight to Moderate category. Litter amount rated in the Moderate category, with the percentage falling at the bottom end of the range, expected for the ESD. Annual production currently is approximately 400-500 lbs/ac or kg/ha. This indicates approximately half of the potential production, resulting in a rating of Moderate. The dominance of mesquite on this site is influencing the production, but not the reproductive capability of these perennial grasses which rated in the Slight to Moderate category. Soil surface resistance to erosion rated in the Moderate category, with the soil stability test showing a rapid melting of interspace and under plant canopy soil samples. Organic matter is lacking on this site, but this is expected for an area dominated by mesquite, as indicated by the small amount of litter present. Pedestals and/or terracettes, gullies, and wind-scoured blowouts, and/or depositional areas all rated in the Moderate category, which is indicative for this site. All other indicators rated in the None to Slight to Slight to Moderate category. The mosaic pattern presented by the mesquite dunes and the breaks of this pasture provides excellent habitat for wildlife, ie food, cover and water.

North Breaks Pasture's bareground rating is at Moderate. Currently the percentage is approximately 50%, which exceeds the upper expected range for the ESD which is 15-20%. However, the long-term datum is at 54%, with a range of 33-84%. Functional/Structural groups rated in the Moderate category. This biotic attribute exhibited a replacement of the grama (Bouteloua spp.) grasses by bush muhly (Muhlenbergia porteri), dropseed (Sporobolus spp.), threeawn, javelinabush (Condalia spp.) and mesquite. Bush muhly is the dominant grass species on site. The overall condition of the site is good, with a diversity of forb, grass and shrub species. Annual production is 800-900 lbs/ac or kg/ha approximately. This falls well within the range which approaches and/or exceeds 80% of potential, rating in the Slight to Moderate category. Invasive plants rated in the Moderate to Extreme category with mesquite common throughout.

Pasture #3 , which is SD-3 Sandy, appeared to exhibit some gyp inclusions as evidenced by some microbiological crusts on site. But these small areas are infrequent and few, with the FS groups remaining constant. The exception being tobosa (Pleuraphis mutica), which is the dominant perennial grass along with black grama and burrograss

(Scleropogon brevifolius). A rating of Slight to Moderate was given to this indicator. The bareground indicator was given a rating of Moderate. ESD percentage is at 15-20%. A current estimation of 50% far exceeds that expected for the site, but long-term datum also is at 50%. These data have been collected since the late 70's/early 80's, every 5 years, so this rating is justified from that standpoint. Invasive plants was given a rating of Moderate as mesquite was only scattered throughout the site. Litter amount presently is

Griffen East Pasture rated pedestals and terracettes in the Moderate category, as evidenced by dropseed species slightly pedestaling in water flow patterns. Bareground for this pasture was given a rating of Moderate. Although the ESD allows for 15-20% ground cover, long-term datum is 57% for this particular site. The current estimation of 40-45% falls slightly below this value. Invasive plants was Moderate to Extreme with mesquite common throughout the site. A more critical look at this area should be performed to possibly prescribe some future brush treatments. Again a mosaic of vegetation is desired to provide ample wildlife habitat as well as adequate forage.

The Private pasture and the #3 pasture has experienced drought and water and wind erosion conditions which has possibly increased the amount of bare ground. The amount of bareground present suggests that the drought has had a negative affect on the area. The litter amount present suggests that the drought has had a negative affect on the growing conditions which decreases the amount of litter that is produced. A decrease in litter cover can have the effect of increasing the area of bare ground. Gypsum, dolomite, and siltstone rock outcrops from the Yates Formation are present in the area. Quaternary pediment gravels also outcrop in the area.

The #2 pasture has experienced drought and water and wind erosion conditions which has possibly increased the amount of bare ground. The amount of bareground present suggests that the drought has had a negative affect on the area. A decrease in litter cover can have the effect of increasing the area of bare soil. Gypsum, dolomite, and siltstone rock outcrops from the Yates Formation are present in the area. Quaternary pediment gravels also outcrop in the area.

The #4 pasture has experienced an increase in the amount of wind-scoured, blowouts and deposition areas. The decrease in the strength of the soil crusts and/or the absence of soil crusts, wind velocity, surface dryness, surface roughness, and amount of surface plant cover has possibly increased the amount of wind-scoured, blowouts and deposition areas in the area. Gypsum, dolomite, and siltstone rock outcrops from the Yates Formation are present in the area. Quaternary pediment gravels also outcrop in the area.

The Griffin East pasture has experienced drought and wind and water erosion conditions. Erosion is indicated in the area by the presence of pedestals. Slight active pedestalling is present but most pedestals are in water flow paths. A decrease in soil moisture in the area of the Griffin East has possibly decreased the amount of plant cover and possibly decreased infiltration into the soil which may have increased the occurrence of pedestalling on plants and rocks. Water and wind has eroded the soils which has the affect of elevating the plants and rocks to form pedestals. The drought and water and

wind erosion in the area has possibly increased the amount of bare ground. The amount of bareground present suggests that the drought has had a negative affect on the area. Gypsum, dolomite, and siltstone rock outcrops from the Yates Formation are present in the area. Quaternary pediment gravels also outcrop in the area.

The HDQ pasture has experienced drought and water and wind erosion conditions which has possibly increased the amount of bare ground. The amount of bareground present suggests that the drought has had a negative affect on the area. The area has experienced water erosion that has created gullies in the area. Active erosion is indicated by the presence of gullies and vegetation cover is intermittent. Wind-scoured, blowouts and deposition areas are occasionally present in the area. The decrease in the strength of the soil crusts and/or the absence of soil crusts, wind velocity, surface dryness, surface roughness, and amount of surface plant cover has possibly increased the amount of wind-scoured, blowouts and deposition areas in the area. The soil surface resistance to erosion is reduced throughout the site. There has possibly been a reduction of stabilizing agents such as aggregated organic matter at surface and a decrease of adhesion of organic matter to surface soils. Gypsum, dolomite, and siltstone rock outcrops from the Yates Formation are present in the area. Quaternary pediment gravels also outcrop in the area.

The North Breaks pasture has experienced drought and water and wind erosion conditions which has possibly increased the amount of bare ground. The amount of bareground present suggests that the drought has had a negative affect on the area. The litter amount has be effected by the drought or water availability in the area. The litter amount present suggests that the drought has had a negative affect on the growing conditions which decreases the amount of litter that is produced. A decrease in litter cover can have the effect of increasing the area of bare ground. Gypsum, dolomite, and siltstone rocks outcrop from the Yates Formation in the area. Sandstone and conglomerate rocks outcrop in the area from the Santa Rosa Formation. Quaternary pediment gravels outcrop in the area.

The South Breaks pasture has experienced drought and water and wind erosion conditions which has possibly increased the amount of bare ground. The amount of bareground present suggests that the drought has had a negative affect on the area. The decrease in litter amount has possibly added to the effect of increased bare ground. The litter amount has be effected by the drought or water availability in the area. The litter amount present suggests that the drought has had a negative affect on the growing conditions which decreases the amount of litter that is produced. A decrease in litter cover can have the effect of increasing the area of bare ground. Erosion is indicated in the area by the presence of pedestals. Slight active pedestalling is present but most pedestals are in water flow paths. A decrease in soil moisture in the area has possibly decreased the amount of plant cover and possibly decreased infiltration into the soil which may have increased the occurrence of pedestalling on plants and rocks. Water and wind has eroded the soils which has the affect of elevating the plants and rocks to form pedestals.

The area has experienced water erosion that has created gullies in the area. Active erosion is indicated by the presence of gullies and vegetation cover is intermittent. Wind-scoured,

blowouts and deposition areas are occasionally present in the area. The possible decrease in the strength of the soil crusts and/or the absence of soil crusts, wind velocity, surface dryness, surface roughness, and amount of surface plant cover has possibly increased the amount of wind-scoured, blowouts and deposition areas in the area. The soil surface resistance to erosion is reduced throughout the site. There has possibly been a reduction of stabilizing agents such as aggregated organic matter at surface and a decrease of adhesion of organic matter to surface soils. Gypsum, dolomite, and siltstone rocks outcrop from the Yates Formation in the area. Quaternary pediment gravels outcrop in the area.

It is the professional opinion of the Assessment team that this allotment meets the Upland and Biotic standards. Further monitoring of the pastures with brush encroachment maybe warranted, to possibly recommend future vegetation treatments and improve the potential of these areas and the allotment.

The (*) indicates that the assessment had one or more indicator(s) rated moderate/extreme or extreme. These indicators are:

- Bare Ground
- Litter Amount
- Invasive Plants

These indicators by themselves are not enough to rate the site as not meeting a standard but may warrant future monitoring.

Recommendations: The pastures/sites with mesquite (Prosopis glandulosa) encroaching need further monitoring, although there is ample wildlife habitat available. Due to the invasive properties of mesquite, it would be prudent to prescribe brush treatment in the future to open up canopies and allow perennial grass and forb production a better opportunity to manifest itself. This would allow for a greater biodiversity of vegetation and create mosaic patterns, and still benefit wildlife and livestock as well.

RFOs Upland and Biotic Standard Assessment Summary Worksheet			
SITE 65021-#1 - PRIVATE-D063			
Legal Land Desc	NWNE 10 0070S 0260E Meridian 23	Acreage	202
Ecosite	042CY004NM SANDY SD-3	Photo Taken	N
Watershed	13060003220 FILLMORE		
Observers	NAVARRO/MCGEE	Observation Date	07/17/2003
County Soil Survey	NM644 CHAVES NORTH	Soil Var/Taxad	
Soil Map Unit	SMA	Soil Taxon Name	SOTIM
Texture Class	NM644 FSL	Soil Phase	SOTIM-BERINO
Texture Modifier	NM644 FINE SANDY LOAM		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	12.64	NOAA Growing Season Precipitation	8.3
NOAA Avg Annual Precipitation	13.2	NOAA Avg Growing Season Precipitation	10.84
Disturbances and Animal Use:			

Part 2. Attributes and Indicators

		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:						
S H	Water Flow Patterns				X	
Comments:						
S H	Pedestals and/or Terracettes					X
Comments:						
S H	Bare Ground			X		

Comments:	Bareground is at presently approaching the upper end of the range.					
S H	Gullies				X	
Comments:	Comments to be entered by Hydrologist.					
S	Wind-scoured, Blowouts, and/or Deposition Areas				X	
Comments:	The nature of the site allows for limited wind scouring. This is the nature of the site.					
H	Litter Movement				X	
Comments:	Water has transported some litter against obstructions.					
S H B	Soil Surface Resistance to Erosion				X	
Comments:	Interspace soil initially melts and remains intact;canopy is ok.					
S H B	Soil Surface Loss or Degradation				X	
Comments:	Physical crusts keeping soil surface intact.					
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff				X	
Comments:						
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups				X	
Comments:	Black grama (Bouteloua eriopoda), threeawn (Aristida spp.), and tobosa (Pleuraphis mutica) abundant on site. FS groups only sightly deviate from ESD.					
B	Plant Mortality/Decadence					X
Comments:	No apparent decadence seen.					
H B	Litter Amount			X		
Comments:						
B	Annual Production				X	
Comments:	Production is at lower end of 60-80%.					
B	Invasive Plants			X		
Comments:	Mesquite (Prosopis glandulosa) only scattered.					
B	Reproductive Capability of Perennial Plants					X
Comments:						

S	Physical/Chemical/Biological Crusts					X
Comments:	Biological and physical present.					
B	Wildlife Habitat				X	
Comments:						
B	Wildlife Populations				X	
Comments:						
B	Special Status Species Habitat					X
Comments:	None known to occur.					
B	Special Status Species Populations					X
Comments:	None known to occur.					

Part 3. Summary

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	1	5	4
H	Hydrologic	0	0	2	6	3
B	Biotic	0	0	2	6	5

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets

Soil		0	1	9
Hydrologic		0	2	9
Biotic		0	2	11
Site Notes: Private pasture with conservative use by cattle.				

RFOs Upland and Biotic Standard Assessment Summary Worksheet			
SITE 65021-#1-D056			
Legal Land Desc	SESW 15 0070S 0260E Meridian 23	Acreage	324
Ecosite	042CY005NM DEEP SAND SD-3	Photo Taken	N
Watershed	13060003220 FILLMORE		
Observers	MCGEE/NAVARRO	Observation Date	06/03/2003
County Soil Survey	NM644 CHAVES NORTH	Soil Var/Taxad	
Soil Map Unit	PBB	Soil Taxon Name	PAJARITO
Texture Class	NM644 LFS	Soil Phase	PAJARITO-BLUEPOINT
Texture Modifier	NM644 FINE SANDY LOAM,HU		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	12.64	NOAA Growing Season Precipitation	8.3
NOAA Avg Annual Precipitation	13.2	NOAA Avg Growing Season Precipitation	10.84
Disturbances and Animal Use:			

Part 2. Attributes and Indicators

		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:						
S H	Water Flow Patterns				X	
Comments:						

S H	Pedestals and/or Terracettes				X	
Comments:						
S H	Bare Ground				X	
Comments:						
S H	Gullies					X
Comments:						
S	Wind-scoured, Blowouts, and/or Deposition Areas				X	
Comments:						
H	Litter Movement					X
Comments:						
S H B	Soil Surface Resistance to Erosion					X
Comments:	Organic matter is present and stabilizing.					
S H B	Soil Surface Loss or Degradation				X	
Comments:						
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff				X	
Comments:						
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups				X	
Comments:	Mesquite canopy covers					
B	Plant Mortality/Decadence					X
Comments:						
H B	Litter Amount				X	
Comments:						
B	Annual Production					X
Comments:						
B	Invasive Plants		X			
Comments:						
B	Reproductive Capability of Perennial Plants					X
Comments:						

S	Physical/Chemical/Biological Crusts				X	
Comments:	Physical crusts evident					
B	Wildlife Habitat				X	
Comments:						
B	Wildlife Populations				X	
Comments:						
B	Special Status Species Habitat					X
Comments:	None known to occur					
B	Special Status Species Populations					X
Comments:	None known to occur					

Part 3. Summary

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	0	6	4
H	Hydrologic	0	0	0	6	5
B	Biotic	0	1	0	5	7

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets

Soil		0	0	10
Hydrologic		0	0	11
Biotic		1	0	12
Site Notes:				

RFOs Upland and Biotic Standard Assessment Summary Worksheet			
SITE 65021-#2-D057			
Legal Land Desc	SWSE 14 0070S 0260E Meridian 23	Acreage	324
Ecosite	042CY005NM DEEP SAND SD-3	Photo Taken	N
Watershed	13060003220 FILLMORE		
Observers	MCGEE/ NAVARRO	Observation Date	06/03/2003
County Soil Survey	NM644 CHAVES NORTH	Soil Var/Taxad	
Soil Map Unit	BPB	Soil Taxon Name	BERINO
Texture Class	NM644 SCL	Soil Phase	BERINO-BLUEPOINT
Texture Modifier	NM644 SANDY CLAY LOAM,HU		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	12.64	NOAA Growing Season Precipitation	8.3
NOAA Avg Annual Precipitation	13.2	NOAA Avg Growing Season Precipitation	10.84
Disturbances and Animal Use:			

Part 2. Attributes and Indicators

		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:						
S H	Water Flow Patterns					X
Comments:						
S H	Pedestals and/or Terracettes					X
Comments:						

S H	Bare Ground				X	
Comments:						
S H	Gullies					X
Comments:						
S	Wind-scoured, Blowouts, and/or Deposition Areas					X
Comments:	Occurring naturally in dunal areas.					
H	Litter Movement					X
Comments:						
S H B	Soil Surface Resistance to Erosion				X	
Comments:						
S H B	Soil Surface Loss or Degradation					X
Comments:						
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff				X	
Comments:						
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups					X
Comments:						
B	Plant Mortality/Decadence					X
Comments:						
H B	Litter Amount					X
Comments:						
B	Annual Production					X
Comments:						
B	Invasive Plants		X			
Comments:						
B	Reproductive Capability of Perennial Plants					X
Comments:						
S	Physical/Chemical/Biological Crusts				X	

Comments:						
B	Wildlife Habitat				X	
Comments:						
B	Wildlife Populations				X	
Comments:						
B	Special Status Species Habitat					X
Comments:	None known to occur.					
B	Special Status Species Populations					X
Comments:	None known to occur.					

Part 3. Summary

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	0	3	7
H	Hydrologic	0	0	0	3	8
B	Biotic	0	1	0	3	9

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil		0	0	10
Hydrologic		0	0	11

Biotic		1	0	12
Site Notes:				

RFOs Upland and Biotic Standard Assessment Summary Worksheet			
SITE 65021-#2-PRIVATE-D064			
Legal Land Desc	NENE 11 0070S 0260E Meridian 23	Acreage	
Ecosite	042CY004NM SANDY SD-3	Photo Taken	N
Watershed	13060003220 FILLMORE		
Observers	NAVARRO/MCGEE	Observation Date	07/17/2003
County Soil Survey	NM644 CHAVES NORTH	Soil Var/Taxad	
Soil Map Unit	HMA	Soil Taxon Name	HOLLOMEX
Texture Class	NM644 L	Soil Phase	HOLLOMEX-REEVES-MILNER
Texture Modifier	NM644 LOAM,DRY		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	12.64	NOAA Growing Season Precipitation	8.3
NOAA Avg Annual Precipitation	13.2	NOAA Avg Growing Season Precipitation	10.84
Disturbances and Animal Use:			

Part 2. Attributes and Indicators

		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills				X	
Comments:						
S H	Water Flow Patterns				X	
Comments:						
S H	Pedestals and/or Terracettes				X	

Comments:						
S H	Bare Ground			X		
Comments:						
S H	Gullies				X	
Comments:	Vegetation is stabilizing the site.					
S	Wind-scoured, Blowouts, and/or Deposition Areas				X	
Comments:						
H	Litter Movement				X	
Comments:						
S H B	Soil Surface Resistance to Erosion					X
Comments:						
S H B	Soil Surface Loss or Degradation					X
Comments:						
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff					X
Comments:						
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups					X
Comments:	High amount of black grama and other preferred perennials on site.					
B	Plant Mortality/Decadence					X
Comments:						
H B	Litter Amount				X	
Comments:						
B	Annual Production					X
Comments:						
B	Invasive Plants			X		
Comments:	Mesquite only scattered.					
B	Reproductive Capability of Perennial Plants					X
Comments:						
S	Physical/Chemical/Biological					X

	Crusts					
Comments:	Physical crusts evident.					
B	Wildlife Habitat				X	
Comments:						
B	Wildlife Populations				X	
Comments:						
B	Special Status Species Habitat					X
Comments:	None known to occur.					
B	Special Status Species Populations					X
Comments:	None known to occur.					

Part 3. Summary

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	1	5	4
H	Hydrologic	0	0	1	6	4
B	Biotic	0	0	1	3	9

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil		0	1	9

Hydrologic		0	1	10
Biotic		0	1	12

Site Notes: This site is under very conservative stocking at the moment. The health of the site is very good to excellent judging from the amount of ground cover.

Pasture is all private land.

RFOs Upland and Biotic Standard Assessment Summary Worksheet			
SITE 65021-#3-D058			
Legal Land Desc	SESW 1 0070S 0260E Meridian 23	Acreage	889
Ecosite	042CY004NM SANDY SD-3	Photo Taken	Y
Watershed	13060003220 FILLMORE		
Observers	NAVARRO/MCGEE	Observation Date	08/21/2003
County Soil Survey	NM644 CHAVES NORTH	Soil Var/Taxad	
Soil Map Unit	SMA	Soil Taxon Name	SOTIM
Texture Class	NM644 FSL	Soil Phase	SOTIM-BERINO
Texture Modifier	NM644 FINE SANDY LOAM		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	12.64	NOAA Growing Season Precipitation	8.3
NOAA Avg Annual Precipitation	13.2	NOAA Avg Growing Season Precipitation	10.84
Disturbances and Animal Use:			

Part 2. Attributes and Indicators

		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:						
S H	Water Flow Patterns				X	
Comments:						
S H	Pedestals and/or Terracettes				X	
Comments:						
S H	Bare Ground			X		

Comments:	At present, the bareground is 40-50%. This exceeds the upper range for the ESD which is only 15-20%. However the long-term data indicates a percentage of 50% from 1979 to present.					
S H	Gullies				X	
Comments:						
S	Wind-scoured, Blowouts, and/or Deposition Areas				X	
Comments:						
H	Litter Movement				X	
Comments:						
S H B	Soil Surface Resistance to Erosion				X	
Comments:						
S H B	Soil Surface Loss or Degradation					X
Comments:						
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff				X	
Comments:						
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups				X	
Comments:	FS groups only slightly reduced. More tobosa (Pleuraphis mutica) than expected.					
B	Plant Mortality/Decadence					X
Comments:						
H B	Litter Amount		X			
Comments:	At present, amount of litter is very low; (10-15%). The long-term average is 31%. ESD indicates 35-45%. This would justify a Moderate to Extreme rating.					
B	Annual Production				X	
Comments:	Annual production is at 80% of potential and falls well within the expected range.					
B	Invasive Plants			X		
Comments:	Mesquite (Prosopis glandulosa) only scattered throughout.					
B	Reproductive Capability of					X

	Perennial Plants					
Comments:						
S	Physical/Chemical/Biological Crusts				X	
Comments:	Some physical crusts with some microbiological crusting on very small gyp inclusions.					
B	Wildlife Habitat				X	
Comments:						
B	Wildlife Populations				X	
Comments:						
B	Special Status Species Habitat					X
Comments:	None known to occur.					
B	Special Status Species Populations					X
Comments:	None known to occur.					

Part 3. Summary

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	1	6	3
H	Hydrologic	0	1	1	6	3
B	Biotic	0	1	1	5	6

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not	May	Meets

		Meet	Need More Info	
Soil		0	1	9
Hydrologic	Litter amount	1	1	9
Biotic		1	1	11
Site Notes:				

RFOs Upland and Biotic Standard Assessment Summary Worksheet			
SITE 65021-#4-D059			
Legal Land Desc	NESE 13 0070S 0260E Meridian 23	Acreage	318
Ecosite	042CY004NM SANDY SD-3	Photo Taken	Y
Watershed	13060003220 FILLMORE		
Observers	NAVARRO/MCGEE	Observation Date	08/14/2003
County Soil Survey	NM644 CHAVES NORTH	Soil Var/Taxad	
Soil Map Unit	SNB	Soil Taxon Name	SOTIM
Texture Class	NM644 FSL	Soil Phase	SOTIM-SIMONA
Texture Modifier	NM644 FINE SANDY LOAM		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	12.64	NOAA Growing Season Precipitation	8.3
NOAA Avg Annual Precipitation	13.2	NOAA Avg Growing Season Precipitation	10.84
Disturbances and Animal Use:			

Part 2. Attributes and Indicators

		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:	Very little slope.					
S H	Water Flow Patterns				X	
Comments:	Soils deposited mostly on hummocks.					
S H	Pedestals and/or Terracettes					X
Comments:						
S H	Bare Ground				X	

Comments:	Percent bareground is at present, 30-35%.					
S H	Gullies				X	
Comments:	Slope dependent.					
S	Wind-scoured, Blowouts, and/or Deposition Areas			X		
Comments:	Mesquie building dune hummocks.					
H	Litter Movement					X
Comments:						
S H B	Soil Surface Resistance to Erosion					X
Comments:	There is almost no melting of iether the canopy or interspace samples.					
S H B	Soil Surface Loss or Degradation					X
Comments:						
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff				X	
Comments:	Large amounts of tobosa (Pleuraphis mutica) present.					
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups				X	
Comments:	Tobosa (Pleuraphis mutica) is the principal grass with some black grama (Bouteloua eriopoda) and burrograss (Scleropogon brevifolius) on site.					
B	Plant Mortality/Decadence					X
Comments:	Very little evidence of decadence.					
H B	Litter Amount				X	
Comments:						
B	Annual Production				X	
Comments:						
B	Invasive Plants				X	
Comments:						
B	Reproductive Capability of Perennial Plants					X
Comments:	There is nothing inhibiting reproductive capability.					
S	Physical/Chemical/Biological Crusts				X	

Comments:	There is some biological and physical crusting.					
B	Wildlife Habitat				X	
Comments:						
B	Wildlife Populations				X	
Comments:						
B	Special Status Species Habitat					X
Comments:	None known to occur.					
B	Special Status Species Populations					X
Comments:	None known to occur.					

Part 3. Summary

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	1	4	5
H	Hydrologic	0	0	0	5	6
B	Biotic	0	0	0	6	7

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil		0	1	9
Hydrologic		0	0	11

Biotic		0	0	13
Site Notes: This site has a dominance of tobosa (Pleuraphis mutica) over the other more preferred grasses such as black grama (Bouteloua eriopoda) or blue grama (Bouteloua gracilis). The encroachment of mesquite (Prosopis glandulosa) is not a threat at this time. Although as the site progresses southward, there is more evidence of mesquite towards the drainage at the foothills of Haystack Mountain. This however is at the far reaches of the transect. Production is high at this time, however the major plant making up the production is tobosa.				

RFOs Upland and Biotic Standard Assessment Summary Worksheet			
SITE 65021-GRIFFEN EAST-D052			
Legal Land Desc	NENE 25 0070S 0260E Meridian 23	Acreage	684
Ecosite	042CY004NM SANDY SD-3	Photo Taken	Y
Watershed	13060003220 FILLMORE		
Observers	NAVARRO/MCGEE	Observation Date	08/21/2003
County Soil Survey	NM644 CHAVES NORTH	Soil Var/Taxad	
Soil Map Unit	PBB	Soil Taxon Name	PAJARITO
Texture Class	NM644 FSL	Soil Phase	PAJARITO-BLUEPOINT
Texture Modifier	NM644 FINE SANDY LOAM,HU		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	12.64	NOAA Growing Season Precipitation	8.3
NOAA Avg Annual Precipitation	13.2	NOAA Avg Growing Season Precipitation	10.84
Disturbances and Animal Use:			

Part 2. Attributes and Indicators

		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:						
S H	Water Flow Patterns				X	
Comments:						

S H	Pedestals and/or Terracettes			X		
Comments:	Some pedestalling.					
S H	Bare Ground			X		
Comments:	The percent bareground is at 40-45%. Exceeds upper range expected for the ESD. Long term data, however indicates an average of 57% with a wide range of 24-73%.					
S H	Gullies				X	
Comments:						
S	Wind-scoured, Blowouts, and/or Deposition Areas				X	
Comments:						
H	Litter Movement				X	
Comments:						
S H B	Soil Surface Resistance to Erosion				X	
Comments:	Slight melting for both the canopy and interspace areas.					
S H B	Soil Surface Loss or Degradation					X
Comments:	None observed.					
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff				X	
Comments:						
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups				X	
Comments:	Grama grasses have been displaced in dominance by threeawn (Aristida spp.), and dropseed (Sporobolus spp.). Bush muhly (Muhlenbergia spp.) however remains prevelent.					
B	Plant Mortality/Decadence				X	
Comments:						
H B	Litter Amount				X	
Comments:	Litter amount is currently at 30-35%, which falls within the expected range for the ESD. Long term average is 18%.					
B	Annual Production				X	
Comments:	Production is approximately at 500-600 lbs. Almost matches long-term monitoring data. ESD range is 600-1200 lbs. Lower end of production but					

	still in the range. 60-80% of potential.					
B	Invasive Plants		X			
Comments:	Mesquite (Prosopis glandulosa) common throughout the site, and encroaching.					
B	Reproductive Capability of Perennial Plants				X	
Comments:	Despite the brush encroachment, reproductive capability is only slightly limited.					
S	Physical/Chemical/Biological Crusts				X	
Comments:	Physical crusts evident and holding the soils intact.					
B	Wildlife Habitat				X	
Comments:						
B	Wildlife Populations				X	
Comments:						
B	Special Status Species Habitat					X
Comments:	None known to occur.					
B	Special Status Species Populations					X
Comments:	None known to occur.					

Part 3. Summary

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	2	5	3
H	Hydrologic	0	0	2	6	3
B	Biotic	0	1	0	8	4

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the

determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.				
Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil		0	2	8
Hydrologic		0	2	9
Biotic	Mesquite (Prosopis glandulosa) encroachment needs to be evaluated and monitored. The brush however is yet to inhibit the site's potential and does provide a mosaic for wildlife cover and habitat. Coppice dunes are evident and this explains the higher percentage of bareground. Sand sage (Artemesia filifolia) is also present, but in lesser amounts.	1	0	12
Site Notes:				

RFOs Upland and Biotic Standard Assessment Summary Worksheet			
SITE 65021-HDQ-D062			
Legal Land Desc	SESE 4 0070S 0260E Meridian 23	Acreage	
Ecosite	042CY004NM SANDY SD-3	Photo Taken	N
Watershed	13060003220 FILLMORE		
Observers	NAVARRO/MCGEE	Observation Date	06/03/2003
County Soil Survey	NM644 CHAVES NORTH	Soil Var/Taxad	
Soil Map Unit	SMA	Soil Taxon Name	SOTIM
Texture Class	NM644 FSL	Soil Phase	SOTIM-BERINO
Texture Modifier	NM644 FINE SANDY LOAM		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	12.64	NOAA Growing Season Precipitation	8.3
NOAA Avg Annual Precipitation	13.2	NOAA Avg Growing Season Precipitation	10.84
Disturbances and Animal Use:			

Part 2. Attributes and Indicators

		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:						
S H	Water Flow Patterns				X	
Comments:						
S H	Pedestals and/or Terracettes				X	
Comments:						

S H	Bare Ground		X			
Comments:						
S H	Gullies			X		
Comments:						
S	Wind-scoured, Blowouts, and/or Deposition Areas			X		
Comments:	Some vegetation on blowouts.					
H	Litter Movement				X	
Comments:						
S H B	Soil Surface Resistance to Erosion			X		
Comments:						
S H B	Soil Surface Loss or Degradation				X	
Comments:						
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff				X	
Comments:						
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups			X		
Comments:						
B	Plant Mortality/Decadence				X	
Comments:						
H B	Litter Amount				X	
Comments:						
B	Annual Production			X		
Comments:						
B	Invasive Plants		X			
Comments:						
B	Reproductive Capability of Perennial Plants				X	
Comments:						
S	Physical/Chemical/Biological Crusts				X	

Comments:						
B	Wildlife Habitat				X	
Comments:						
B	Wildlife Populations				X	
Comments:						
B	Special Status Species Habitat					X
Comments:	None Known to Occur					
B	Special Status Species Populations					X
Comments:	None Known to Occur					

Part 3. Summary

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	1	3	4	2
H	Hydrologic	0	1	2	6	2
B	Biotic	0	1	3	6	3

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil		1	3	6
Hydrologic		1	2	8

Biotic		1	3	9
Site Notes: Pasture is all private land.				

RFOs Upland and Biotic Standard Assessment Summary Worksheet			
SITE 65021-N. BREAKS-D060			
Legal Land Desc	NESW 7 0070S 0270E Meridian 23	Acreage	993
Ecosite	042CY004NM SANDY SD-3	Photo Taken	N
Watershed	13060003220 FILLMORE		
Observers	NAVARRO/MCGEE	Observation Date	08/21/2003
County Soil Survey	NM644 CHAVES NORTH	Soil Var/Taxad	
Soil Map Unit	PBB	Soil Taxon Name	PAJARITO
Texture Class	NM644 FSL	Soil Phase	PAJARITO-BLUEPOINT
Texture Modifier	NM644 FINE SANDY LOAM,HU		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	12.64	NOAA Growing Season Precipitation	8.3
NOAA Avg Annual Precipitation	13.2	NOAA Avg Growing Season Precipitation	10.84
Disturbances and Animal Use:			

Part 2. Attributes and Indicators

		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:						
S H	Water Flow Patterns				X	
Comments:						
S H	Pedestals and/or Terracettes				X	

Comments:						
S H	Bare Ground			X		
Comments:	Percent bareground is 45-50% currently. This exceeds the upper expected range for the ESD, but the long-term average is 54%. A rating of moderate is more appropriate for this particular site.					
S H	Gullies				X	
Comments:						
S	Wind-scoured, Blowouts, and/or Deposition Areas				X	
Comments:						
H	Litter Movement				X	
Comments:	Litter being displaced.					
S H B	Soil Surface Resistance to Erosion				X	
Comments:						
S H B	Soil Surface Loss or Degradation				X	
Comments:						
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff				X	
Comments:						
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups			X		
Comments:	Grama grasses being replaced primarily by dropseed (Sporobolus spp.), threeawn (Aristida spp.), and mesquite (Prosopis glandulosa). Bush muhly (Muhlenbergia porteri) is the grass species which is most dominant, occurring in the open spaces as well as within the shrubs themselves.					
B	Plant Mortality/Decadence					X
Comments:						
H B	Litter Amount			X		
Comments:	Litter amount at present is at 15-20%. It falls well below the bottom end of the range expected for the ESD which is 35%-45%. Long-term data, however indicates an average of 20%, with a range between 5% and 32%.					
B	Annual Production				X	
Comments:	Annual production is closer to 80% of potential.					

B	Invasive Plants		X			
Comments:	Mesquite (Prosopis glandulosa) is common throughout the site and is the principal shrub encroaching with some javelinabush (Condalia spp.) scattered, but in smaller amounts.					
B	Reproductive Capability of Perennial Plants					X
Comments:						
S	Physical/Chemical/Biological Crusts				X	
Comments:	Physical crusts evident.					
B	Wildlife Habitat				X	
Comments:						
B	Wildlife Populations				X	
Comments:						
B	Special Status Species Habitat					X
Comments:	None known to occur.					
B	Special Status Species Populations					X
Comments:	None known to occur.					

Part 3. Summary

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	1	7	2
H	Hydrologic	0	0	2	7	2
B	Biotic	0	1	2	5	5

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that

lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil		0	1	9
Hydrologic		0	2	9
Biotic	Mesquite (Prosopis glandulosa) is common. It appears to be encroaching, but still is providing adequate habitat for upland game birds, mule deer (Odocoileus hemionus) and other wildlife species. This site should remain in a mosaic pattern solely for this purpose.	1	2	10

Site Notes:

RFOs Upland and Biotic Standard Assessment Summary Worksheet			
SITE 65021-S. BREAKS-D061			
Legal Land Desc	SESW 18 0070S 0270E Meridian 23	Acreage	763
Ecosite	042CY004NM SANDY SD-3	Photo Taken	N
Watershed	13060003220 FILLMORE		
Observers	NAVARRO/MCGEE	Observation Date	08/19/2003
County Soil Survey	NM644 CHAVES NORTH	Soil Var/Taxad	
Soil Map Unit	PBB	Soil Taxon Name	PAJARITO
Texture Class	NM644 FSL	Soil Phase	PAJARITO-BLUEPOINT
Texture Modifier	NM644 FINE SANDY LOAM,HU		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	12.64	NOAA Growing Season Precipitation	8.3
NOAA Avg Annual Precipitation	13.2	NOAA Avg Growing Season Precipitation	10.84
Disturbances and Animal Use:			

Part 2. Attributes and Indicators

		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:						
S H	Water Flow Patterns				X	
Comments:						

S H	Pedestals and/or Terracettes			X		
Comments:						
S H	Bare Ground		X			
Comments:	Bareground is 60-70% currently.					
S H	Gullies			X		
Comments:						
S	Wind-scoured, Blowouts, and/or Deposition Areas			X		
Comments:	Deposition areas are evident especially at the base of the large mesquite (Prosopis glandulosa) plants.					
H	Litter Movement				X	
Comments:						
S H B	Soil Surface Resistance to Erosion			X		
Comments:	Interspace as well as under canopy soil, loses stability rapidly with soil/site stability test.					
S H B	Soil Surface Loss or Degradation				X	
Comments:	Horizon still intact suggesting an influence from wind caused deposition.					
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff				X	
Comments:						
S H B	Compaction Layer				X	
Comments:						
B	Functional/Structural Groups				X	
Comments:	Threeawn (Aristida spp.) is the dominant grass species on site. Mesquite (Prosopis glandulosa) is the dominant shrub with scattered sage (Artemesia spp.). Dominance has been slightly modified.					
B	Plant Mortality/Decadence				X	
Comments:						
H B	Litter Amount			X		
Comments:	Litter is currently at 15-20%.					
B	Annual Production			X		
Comments:	Production is currently at half of potential expected for the site.					
B	Invasive Plants	X				

Comments:	Mesquite (Prosopis glandulosa) is dominating the site with large coppice dunes present and only small corridors of inter-shrub spaces.					
B	Reproductive Capability of Perennial Plants				X	
Comments:	Despite the large amounts of mesquite (Prosopis glandulosa) present, the reproductive capability of the perennial grasses present is only slightly limited.					
S	Physical/Chemical/Biological Crusts				X	
Comments:	Physical crusts evident.					
B	Wildlife Habitat				X	
Comments:						
B	Wildlife Populations				X	
Comments:						
B	Special Status Species Habitat					X
Comments:	None known to occur.					
B	Special Status Species Populations					X
Comments:	None known to occur.					

Part 3. Summary

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	1	4	4	1
H	Hydrologic	0	1	4	5	1
B	Biotic	1	0	3	7	2

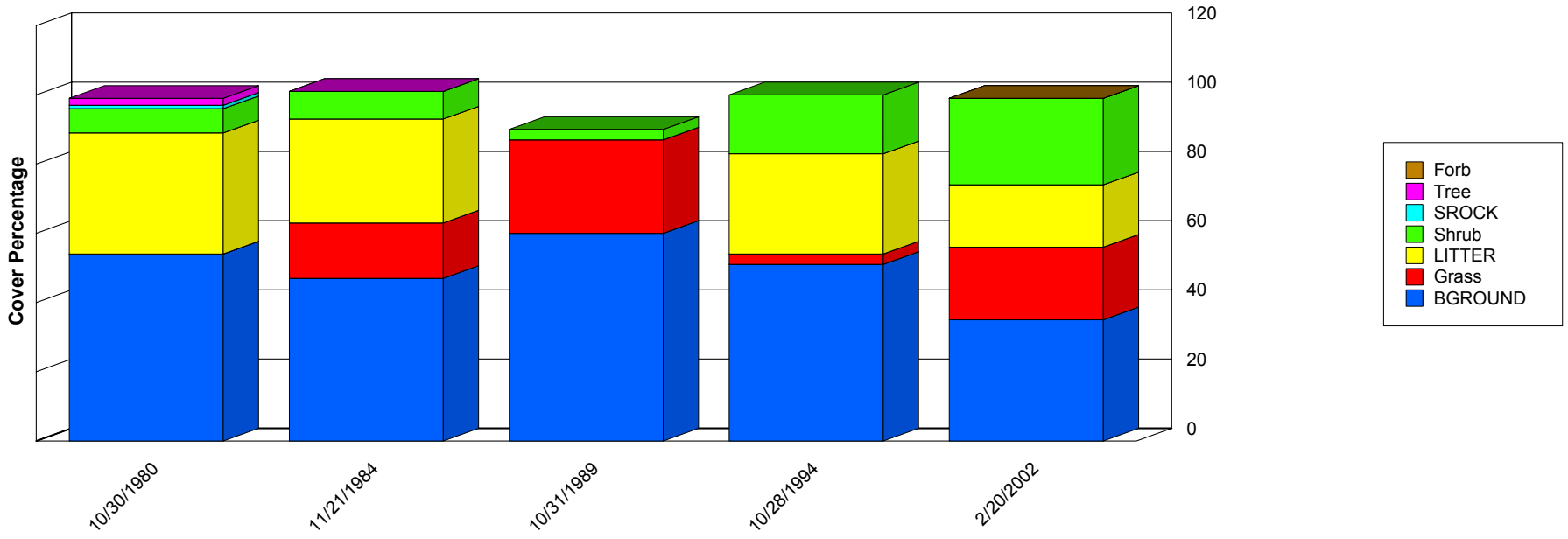
B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that

lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil	Bareground is currently at 60-70% and appears to be approaching a higher percentage. Whatever perennial grass cover is present; threeawn (Aristida spp.), dropseed (Sporobolus spp.) and bush muhly (Muhlenbergia porteri) are making up the majority of vegetative cover with the remainder as bareground encircling the mesquite (Prosopis glandulosa) dune areas.	1	4	5
Hydrologic		1	4	6
Biotic	The site is dominated by mesquite (Prosopis glandulosa). This biotic attribute is rating at the extreme category. There is some perennial grass present, but only on the interdunal areas. Sage (Artemesia spp.) is the other shrub which is present, but in smaller amounts.	1	3	9

Site Notes:

Ground Cover Trends



	10/30/1980	11/21/1984	10/31/1989	10/28/1994	2/20/2002
BGROUND	54.00	47.00	60.00	51.00	35.00
Forb	0.00	0.00	0.00	0.00	0.00
Grass	0.00	16.00	27.00	3.00	21.00
LITTER	35.00	30.00	0.00	29.00	18.00
Shrub	7.00	8.00	3.00	17.00	25.00
SROCK	1.00	0.00	0.00	0.00	0.00
Tree	2.00	0.00	0.00	0.00	0.00
Total	99.00	101.00	90.00	100.00	99.00

Report Parameters

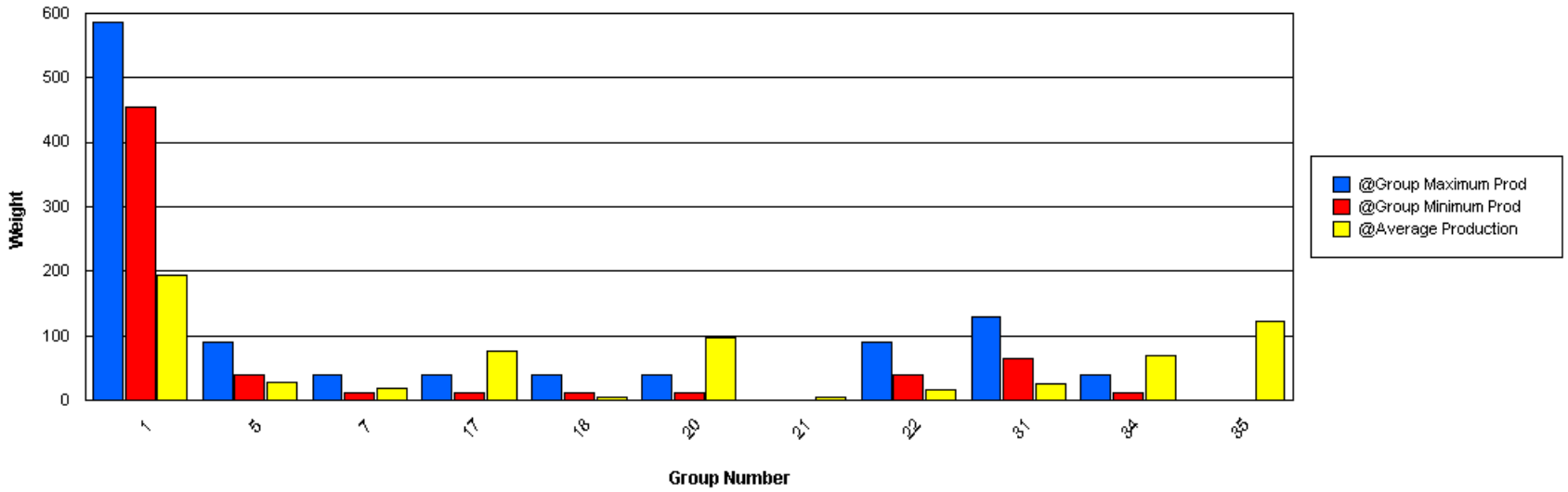
SITE NAME LIKE	65021-#1-D056
ON/AFTER	10/01/1980
ON/BEFORE	09/30/2002

Functional / Structural Groups

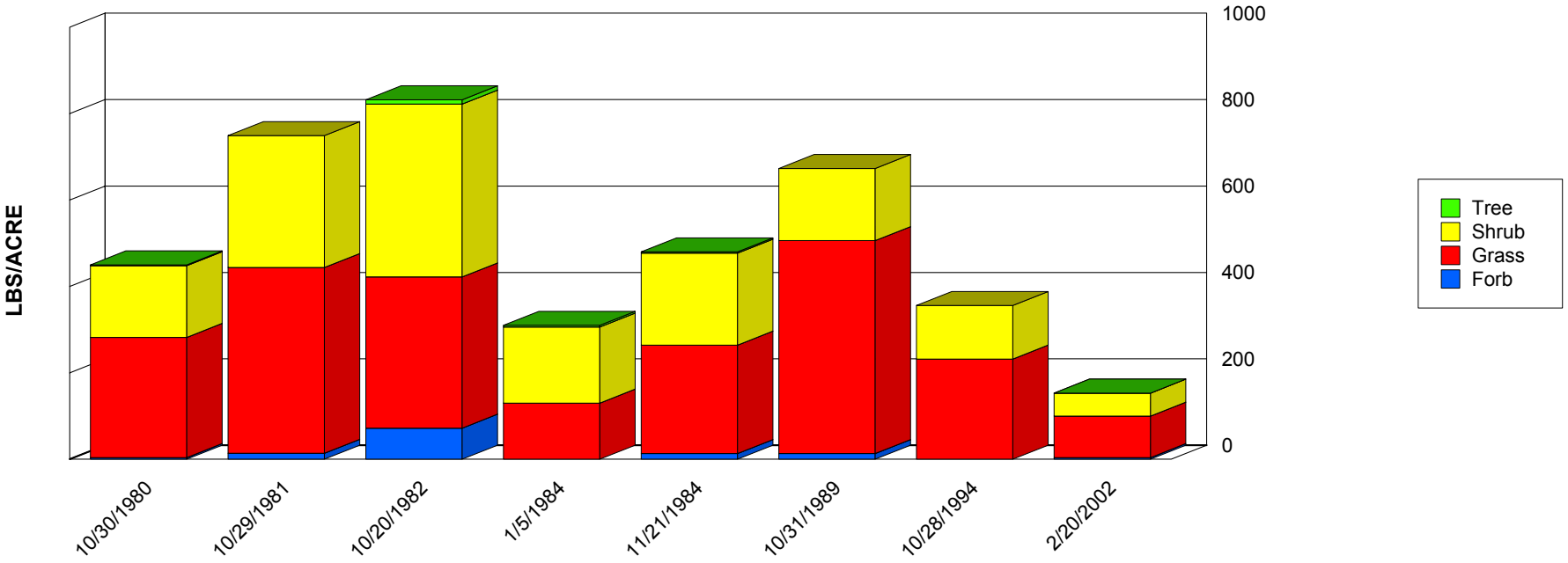
Report Parameters	
SITE NAME LIKE	65021-#1-D056
ON/AFTER	10/01/1980
ON/BEFORE	09/30/2002
MIN LBS TO GRAPH	3
SELECTED ECOSITE	042CY005NM

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
1	Grass	SPCR	455	585	9.00	161.00	70.38	56.18
1	Grass	SPFL2	455	585	28.00	230.00	123.67	82.81
5	Grass	ARIST	39	91	0.00	46.00	27.13	16.59
7	Grass	BOER4	13	39	9.00	36.00	18.00	10.56
17	Grass	MUPO2	13	39	29.00	132.00	77.50	38.57
18	Grass	SEMA5	13	39	0.00	11.00	6.20	4.07
20	Grass	BOBR	13	39	1.00	48.00	21.40	19.89
20	Grass	BOGR2	13	39	3.00	70.00	39.00	27.58
20	Grass	MUAR2	13	39	0.00	5.00	2.33	2.05
20	Grass	PAOB	13	39	34.00	36.00	35.00	1.00
21	Grass	ERPU8			0.00	18.00	5.00	6.16
22	Forb	CROTO	39	91	0.00	45.00	11.75	19.20
22	Forb	CRPO5	39	91	0.00	11.00	5.50	5.50
27	Forb	AAFF	13	39	0.00	1.00	0.75	0.43
28	Forb	ERIOG	13	39	0.00	1.00	0.50	0.50
31	Shrub	YUCCA	65	130	8.00	50.00	21.00	17.00
31	Tree	YUEL	65	130	0.00	10.00	3.80	3.37
34	Shrub	DAFO	13	39	4.00	10.00	6.67	2.49
34	Shrub	GUSA2	13	39	4.00	142.00	63.88	43.74
35	Shrub	PRGL2	0	0	29.00	326.00	123.63	91.00

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV



Production Lbs/Acre Trends

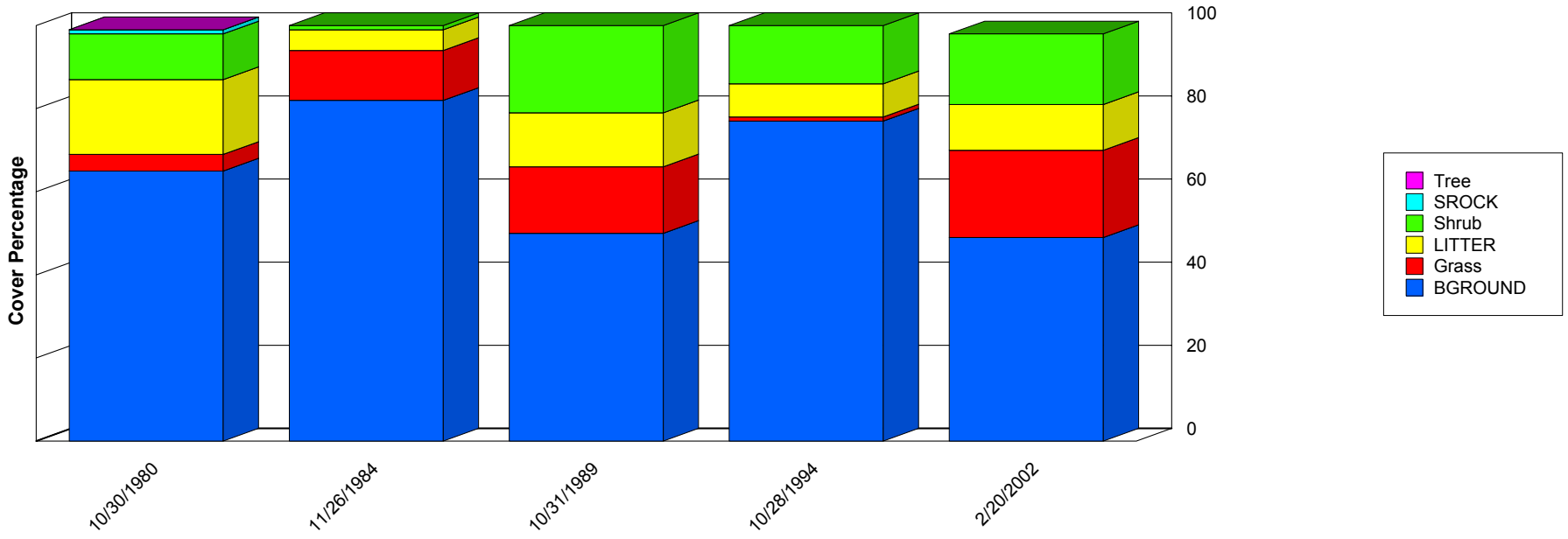


	10/30/1980	10/29/1981	10/20/1982	1/5/1984	11/21/1984	10/31/1989	10/28/1994	2/20/2002
Forb	**4.00**	**14.00**	**72.00**	**0.00**	**13.00**	**13.00**	**0.00**	**4.00**
Grass	**278.00**	**430.00**	**350.00**	**130.00**	**251.00**	**493.00**	**232.00**	**96.00**
Shrub	**166.00**	**305.00**	**400.00**	**176.00**	**213.00**	**167.00**	**124.00**	**53.00**
Tree	**2.00**	**0.00**	**10.00**	**4.00**	**3.00**	**0.00**	**0.00**	**0.00**
Total	**450.00**	**749.00**	**832.00**	**310.00**	**480.00**	**673.00**	**356.00**	**153.00**

Report Parameters

SITE NAME LIKE	65021-#1-D056
ON/AFTER	10/01/1980
ON/BEFORE	09/30/2002

Ground Cover Trends



	10/30/1980	11/26/1984	10/31/1989	10/28/1994	2/20/2002
BGROUND	65.00	82.00	50.00	77.00	49.00
Grass	4.00	12.00	16.00	1.00	21.00
LITTER	18.00	5.00	13.00	8.00	11.00
Shrub	11.00	1.00	21.00	14.00	17.00
SROCK	1.00	0.00	0.00	0.00	0.00
Tree	0.00	0.00	0.00	0.00	0.00
Total	99.00	100.00	100.00	100.00	98.00

Report Parameters

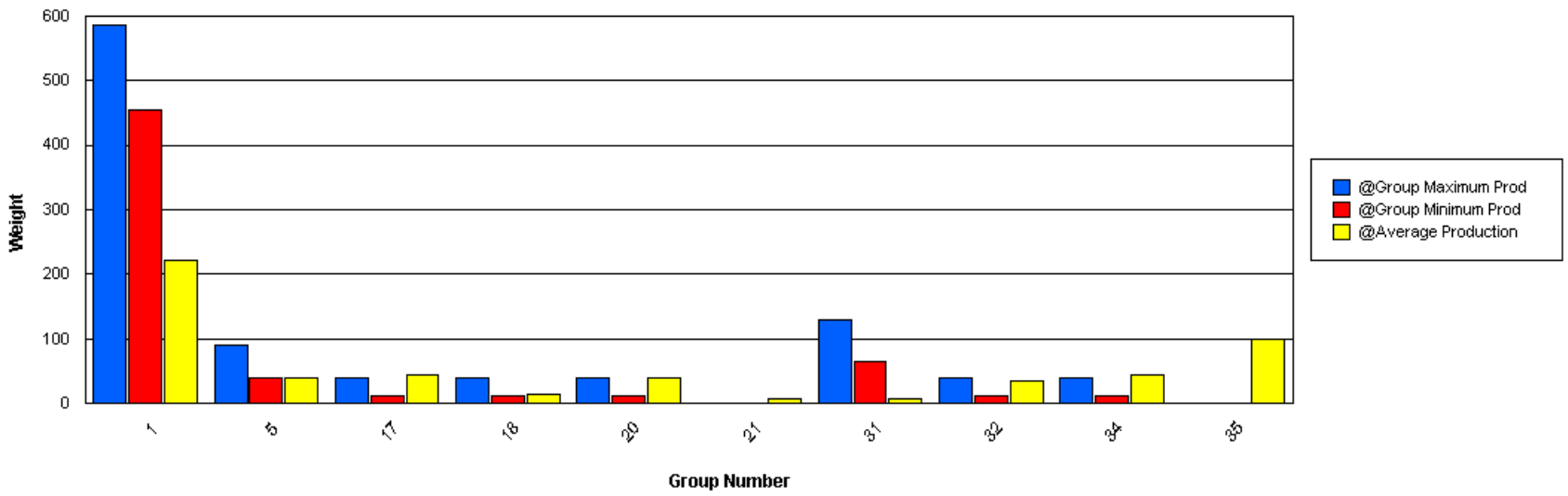
SITE NAME LIKE	65021-#2-D057
ON/AFTER	10/01/1980
ON/BEFORE	09/30/2002

Functional / Structural Groups

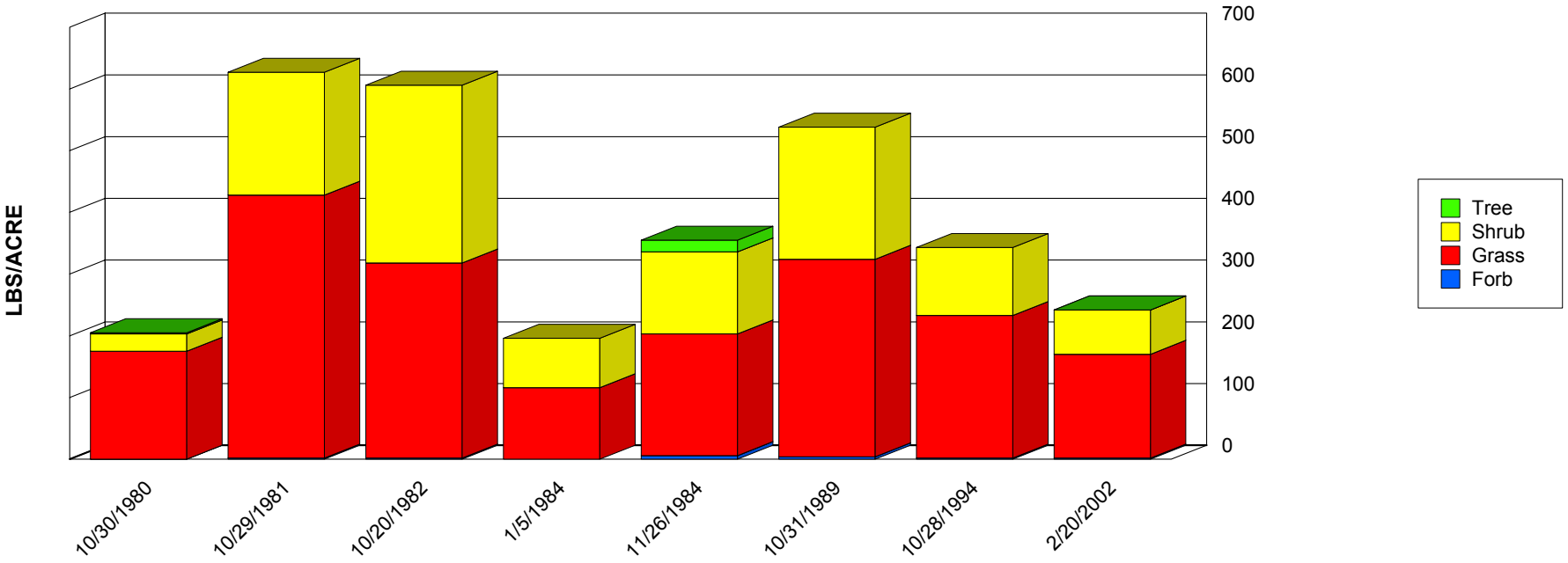
Report Parameters	
SITE NAME LIKE	65021-#2-D057
ON/AFTER	10/01/1980
ON/BEFORE	09/30/2002
MIN LBS TO GRAPH	3
SELECTED ECOSITE	042CY005NM

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
1	Grass	SPCO4	455	585	6.00	92.00	49.00	35.11
1	Grass	SPCR	455	585	12.00	127.00	60.71	44.82
1	Grass	SPFL2	455	585	28.00	252.00	111.75	89.78
5	Grass	ARIST	39	91	0.00	117.00	39.38	36.73
17	Grass	MUPO2	13	39	1.00	78.00	44.50	28.14
18	Grass	SEMA5	13	39	0.00	55.00	13.71	17.39
20	Grass	BOBR	13	39	8.00	95.00	37.67	40.55
20	Grass	BOGR2	13	39	0.00	1.00	0.50	0.50
20	Grass	PARA2	13	39	0.00	4.00	2.00	2.00
21	Grass	ERPU8			1.00	22.00	7.63	8.29
27	Forb	AAFF	13	39	0.00	5.00	2.17	1.86
28	Forb	ERIOG	13	39	0.00	1.00	0.50	0.50
31	Tree	YUEL	65	130	0.00	19.00	7.00	8.52
32	Shrub	ATCA2	13	39	16.00	56.00	36.00	20.00
34	Shrub	GUSA2	13	39	2.00	118.00	44.43	47.37
35	Shrub	PRGL2	0	0	16.00	285.00	100.14	94.52

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV



Production Lbs/Acre Trends

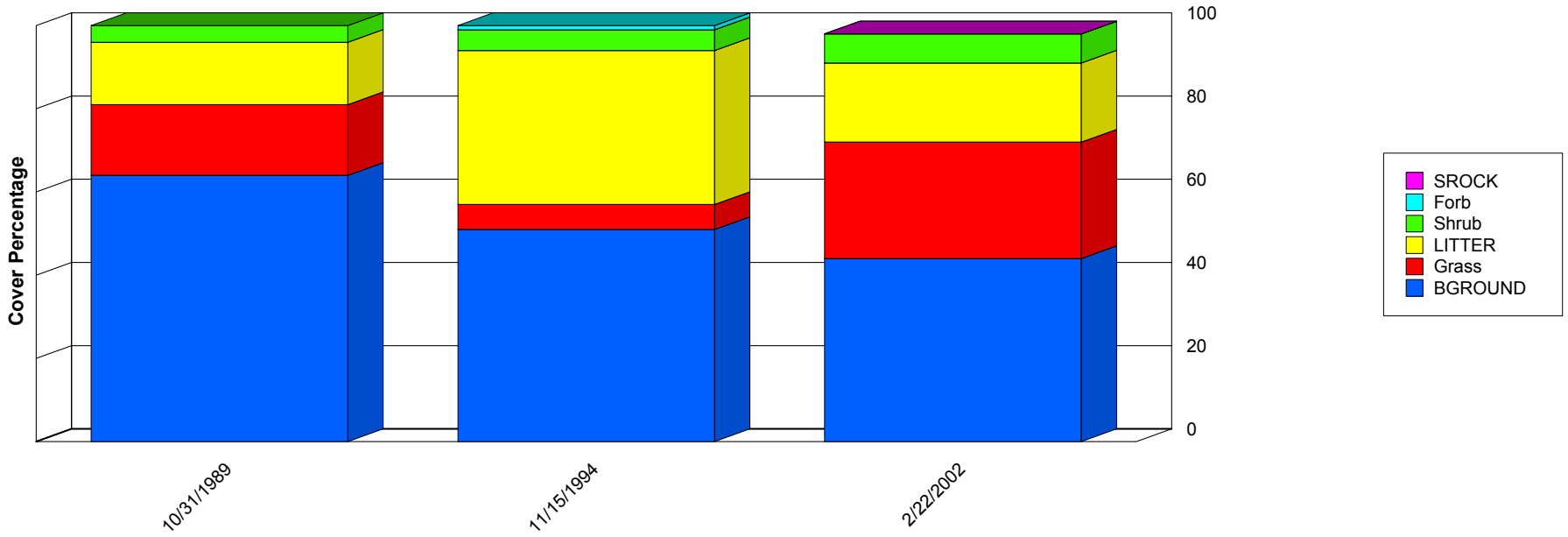


	10/30/1980	10/29/1981	10/20/1982	1/5/1984	11/26/1984	10/31/1989	10/28/1994	2/20/2002
Forb	**0.00**	**2.00**	**2.00**	**0.00**	**6.00**	**4.00**	**2.00**	**2.00**
Grass	**175.00**	**426.00**	**316.00**	**116.00**	**197.00**	**320.00**	**231.00**	**168.00**
Shrub	**28.00**	**199.00**	**288.00**	**80.00**	**133.00**	**214.00**	**110.00**	**72.00**
Tree	**2.00**	**0.00**	**0.00**	**0.00**	**19.00**	**0.00**	**0.00**	**0.00**
Total	**205.00**	**627.00**	**606.00**	**196.00**	**355.00**	**538.00**	**343.00**	**242.00**

Report Parameters

SITE NAME LIKE	65021-#2-D057
ON/AFTER	10/01/1980
ON/BEFORE	09/30/2002

Ground Cover Trends



	10/31/1989	11/15/1994	2/22/2002
BGROUND	64.00	51.00	44.00
Forb	0.00	1.00	0.00
Grass	17.00	6.00	28.00
LITTER	15.00	37.00	19.00
Shrub	4.00	5.00	7.00
SROCK	0.00	0.00	0.00
Total	100.00	100.00	98.00

Report Parameters

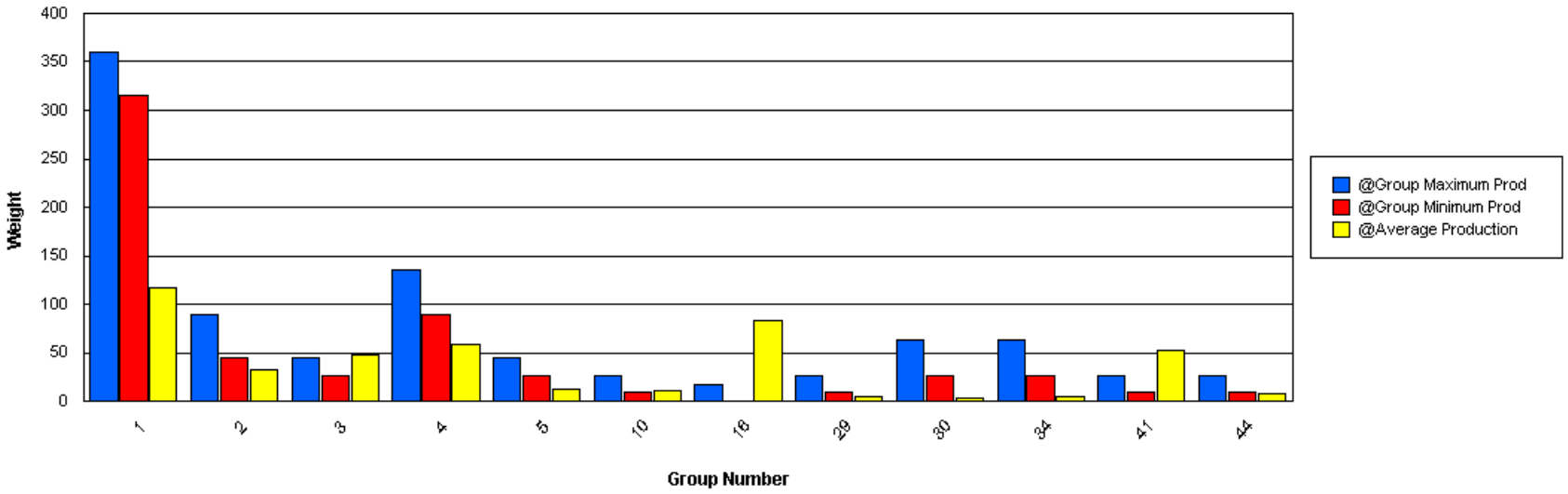
SITE NAME LIKE	65021-#2-PRIVATE-D064
ON/AFTER	10/01/1980
ON/BEFORE	09/30/2002

Functional / Structural Groups

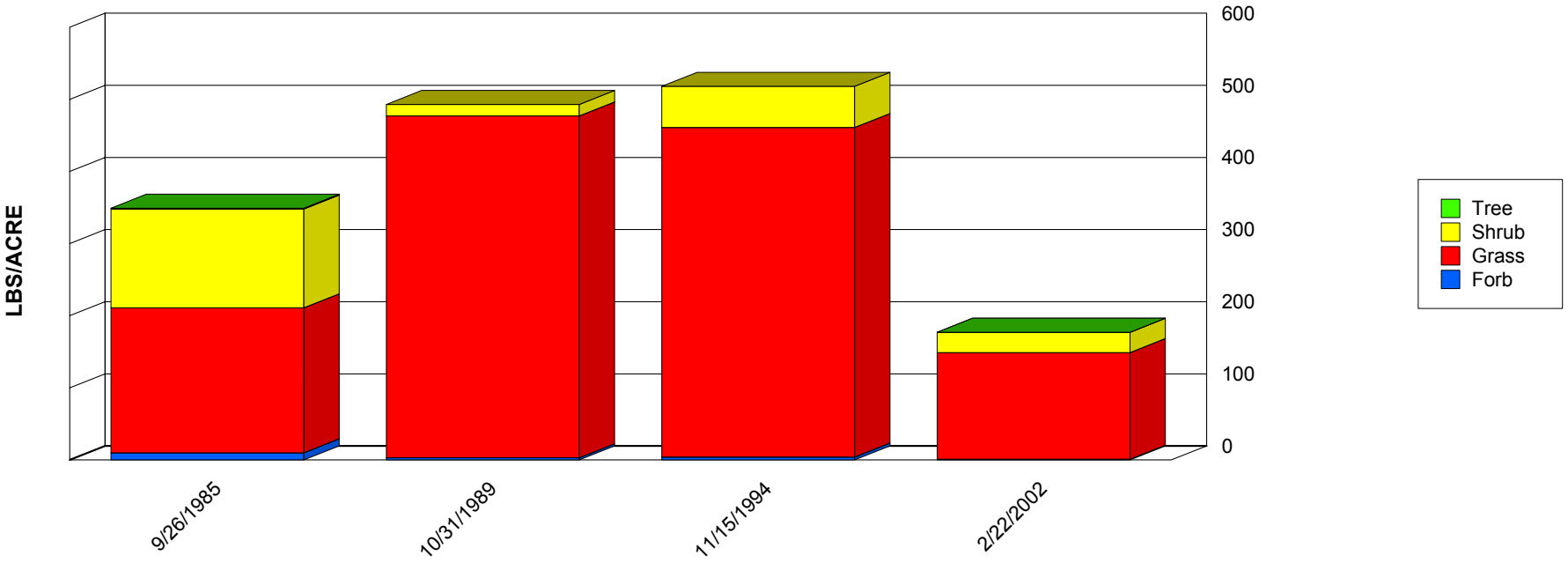
Report Parameters	
SITE NAME LIKE	65021-#2-PRIVATE-D064
ON/AFTER	10/01/1980
ON/BEFORE	09/30/2002
MIN LBS TO GRAPH	3
SELECTED ECOSITE	042CY004NM

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
1	Grass	BOER4	315	360	52.00	211.00	116.75	58.84
2	Grass	BOGR2	45	90	6.00	88.00	32.25	32.68
3	Grass	MUPO2	27	45	0.00	125.00	48.33	54.82
4	Grass	SPCR	90	135	1.00	124.00	59.25	45.43
5	Grass	ARIST	27	45	0.00	23.00	12.75	10.40
10	Grass	HIMU2	9	27	5.00	22.00	11.00	7.79
16	Grass	BOBR	0	18	69.00	99.00	84.00	15.00
23	Grass	MUAR2	9	27	0.00	4.00	2.00	2.00
29	Grass	SPNE	9	27	3.00	8.00	5.50	2.50
30	Forb	CROTO	27	63	0.00	6.00	3.00	3.00
34	Forb	AAFF	27	63	3.00	4.00	3.50	0.50
34	Forb	PEPA2	27	63	0.00	2.00	1.00	1.00
35	Forb	LEMO2	9	27	0.00	2.00	1.00	1.00
37	Tree	YUEL	9	45	0.00	1.00	0.50	0.50
41	Shrub	GUSA2	9	27	6.00	131.00	52.50	49.19
44	Shrub	PRGL2	9	27	6.00	10.00	8.00	2.00

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV



Production Lbs/Acre Trends

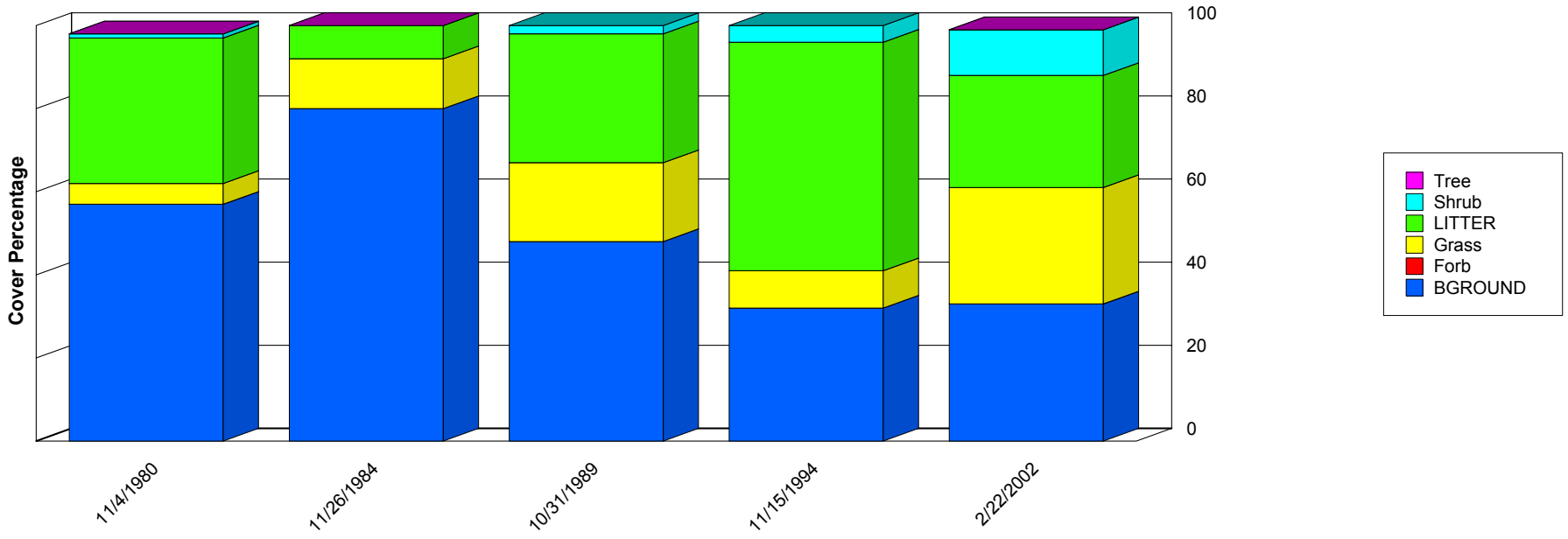


	9/26/1985	10/31/1989	11/15/1994	2/22/2002
Forb	**10.00**	**3.00**	**4.00**	**1.00**
Grass	**201.00**	**474.00**	**457.00**	**148.00**
Shrub	**137.00**	**16.00**	**57.00**	**28.00**
Tree	**1.00**	**0.00**	**0.00**	**0.00**
Total	**349.00**	**493.00**	**518.00**	**177.00**

Report Parameters

SITE NAME LIKE	65021-#2-PRIVATE-D064
ON/AFTER	10/01/1980
ON/BEFORE	09/30/2002

Ground Cover Trends



	11/4/1980	11/26/1984	10/31/1989	11/15/1994	2/22/2002
BGROUND	57.00	80.00	48.00	32.00	33.00
Forb	0.00	0.00	0.00	0.00	0.00
Grass	5.00	12.00	19.00	9.00	28.00
LITTER	35.00	8.00	31.00	55.00	27.00
Shrub	1.00	0.00	2.00	4.00	11.00
Tree	0.00	0.00	0.00	0.00	0.00
Total	98.00	100.00	100.00	100.00	99.00

Report Parameters

SITE NAME LIKE	65021-#3-D058
ON/AFTER	10/01/1980
ON/BEFORE	09/30/2002

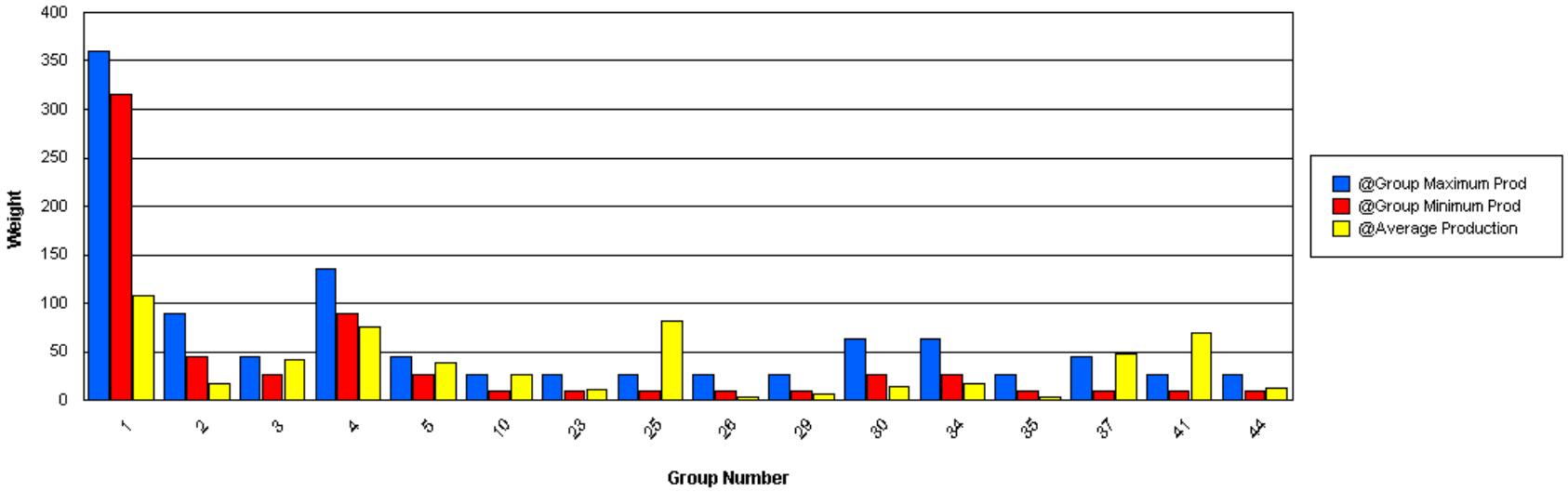
Functional / Structural Groups

Report Parameters

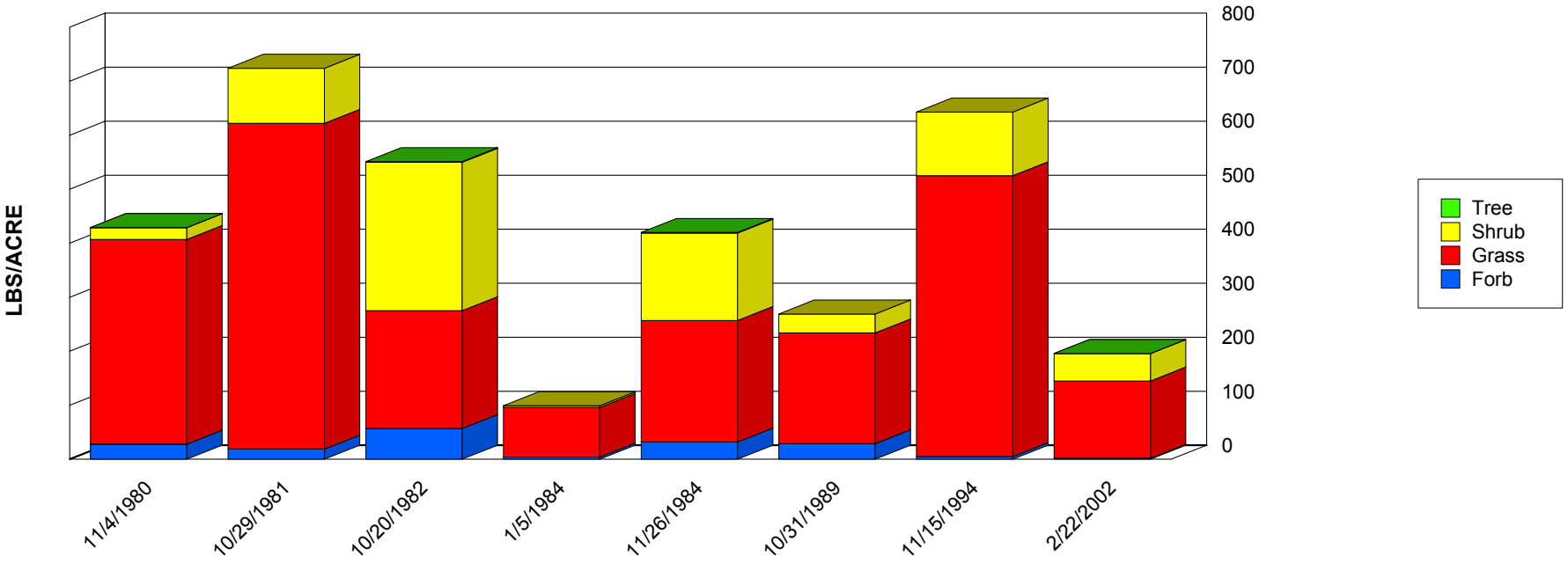
SITE NAME LIKE	65021-#3-D058
ON/AFTER	10/01/1980
ON/BEFORE	09/30/2002
MIN LBS TO GRAPH	3
SELECTED ECOSITE	042CY004NM

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
1	Grass	BOER4	315	360	24.00	214.00	108.50	60.38
2	Grass	BOGR2	45	90	1.00	70.00	16.57	23.05
3	Grass	MUPO2	27	45	4.00	164.00	42.40	61.21
4	Grass	SPCO4	90	135	0.00	67.00	28.40	22.58
4	Grass	SPCR	90	135	3.00	86.00	33.63	26.57
4	Grass	SPFL2	90	135	0.00	38.00	13.20	13.78
5	Grass	ARIST	27	45	0.00	152.00	38.63	46.47
10	Grass	HIJA	9	27	0.00	31.00	14.00	12.83
10	Grass	HIMU2	9	27	8.00	16.00	12.25	3.03
23	Grass	MUAR2	9	27	0.00	18.00	10.50	6.53
25	Grass	PARA2	9	27	15.00	149.00	82.00	67.00
26	Grass	SCBR2	9	27	1.00	7.00	3.00	2.83
29	Grass	ERPU8	9	27	0.00	8.00	4.25	3.77
29	Grass	SPNE	9	27	3.00	3.00	3.00	0.00
30	Forb	CROTO	27	63	0.00	45.00	12.80	16.85
30	Forb	CRPO5	27	63	0.00	2.00	1.00	1.00
32	Forb	LESQU	27	63	0.00	3.00	2.25	1.30
34	Forb	AAFF	27	63	0.00	27.00	6.88	7.91
34	Forb	XADR	27	63	0.00	21.00	10.50	10.50
35	Forb	PPFF	9	27	2.00	3.00	2.50	0.50
35	Forb	SELO	9	27	0.00	1.00	0.50	0.50
37	Shrub	YUCCA	9	45	20.00	108.00	47.75	35.32
37	Tree	YUEL	9	45	0.00	1.00	0.50	0.50
41	Shrub	GUSA2	9	27	1.00	275.00	68.88	93.62
44	Shrub	PRGL2	9	27	13.00	13.00	13.00	0.00

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV



Production Lbs/Acre Trends

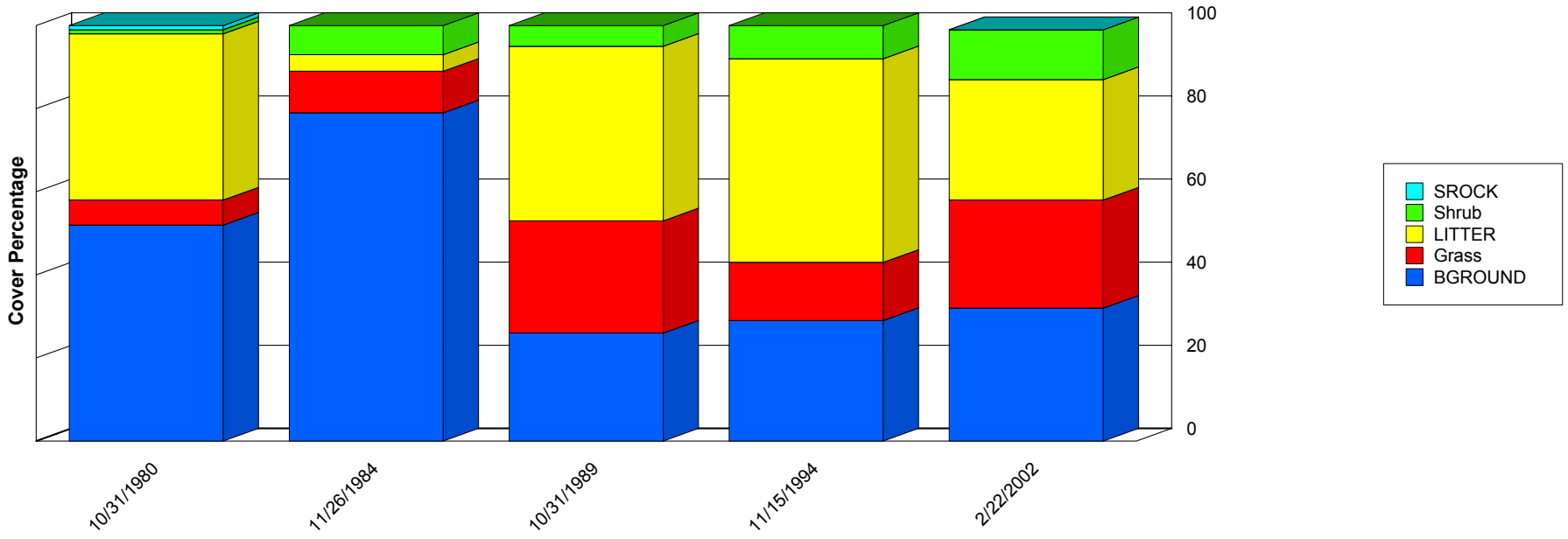


	11/4/1980	10/29/1981	10/20/1982	1/5/1984	11/26/1984	10/31/1989	11/15/1994	2/22/2002
Forb	**28.00**	**19.00**	**57.00**	**4.00**	**32.00**	**29.00**	**5.00**	**2.00**
Grass	**379.00**	**603.00**	**218.00**	**92.00**	**225.00**	**205.00**	**520.00**	**143.00**
Shrub	**22.00**	**102.00**	**275.00**	**3.00**	**162.00**	**35.00**	**118.00**	**51.00**
Tree	**0.00**	**0.00**	**1.00**	**0.00**	**1.00**	**0.00**	**0.00**	**0.00**
Total	**429.00**	**724.00**	**551.00**	**99.00**	**420.00**	**269.00**	**643.00**	**196.00**

Report Parameters

SITE NAME LIKE	65021-#3-D058
ON/AFTER	10/01/1980
ON/BEFORE	09/30/2002

Ground Cover Trends



	10/31/1980	11/26/1984	10/31/1989	11/15/1994	2/22/2002
BGROUND	52.00	79.00	26.00	29.00	32.00
Grass	6.00	10.00	27.00	14.00	26.00
LITTER	40.00	4.00	42.00	49.00	29.00
Shrub	1.00	7.00	5.00	8.00	12.00
SROCK	1.00	0.00	0.00	0.00	0.00
Total	100.00	100.00	100.00	100.00	99.00

Report Parameters

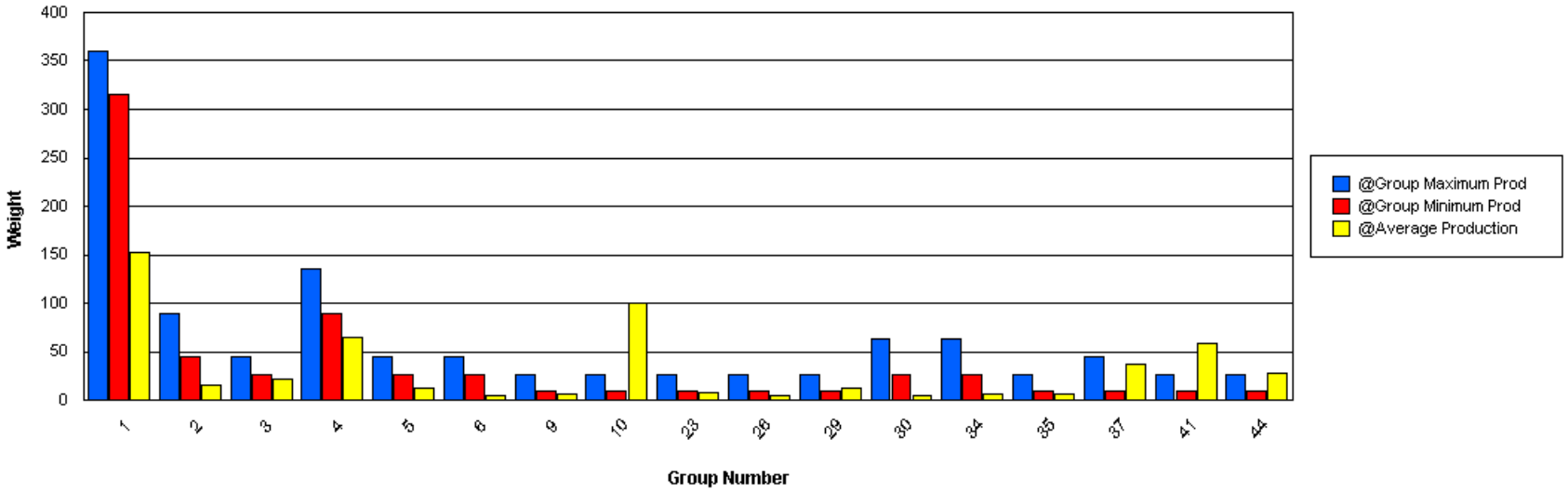
SITE NAME LIKE	65021-#4-D059
ON/AFTER	10/01/1980
ON/BEFORE	09/30/2002

Functional / Structural Groups

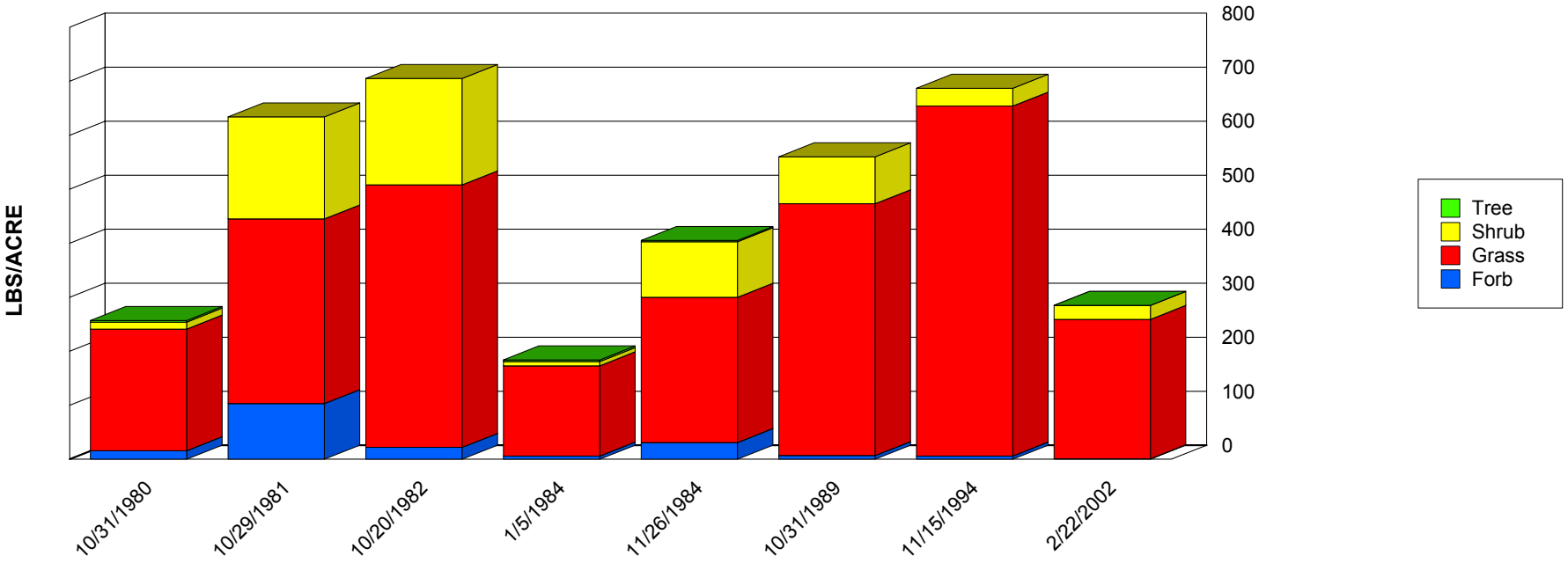
Report Parameters	
SITE NAME LIKE	65021-#4-D059
ON/AFTER	10/01/1980
ON/BEFORE	09/30/2002
MIN LBS TO GRAPH	3
SELECTED ECOSITE	042CY004NM

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
1	Grass	BOER4	315	360	63.00	366.00	151.75	94.49
2	Grass	BOGR2	45	90	5.00	28.00	16.50	11.01
3	Grass	MUPO2	27	45	5.00	53.00	21.50	16.54
4	Grass	SPCO4	90	135	11.00	11.00	11.00	0.00
4	Grass	SPCR	90	135	8.00	159.00	54.00	46.05
5	Grass	ARIST	27	45	0.00	31.00	12.00	10.64
6	Grass	SEMA5	27	45	0.00	16.00	5.67	7.32
9	Grass	PAOB	9	27	0.00	23.00	6.33	7.82
10	Grass	HIMU2	9	27	42.00	198.00	100.29	52.05
23	Grass	MUAR2	9	27	1.00	15.00	8.17	4.88
26	Grass	SCBR2	9	27	0.00	10.00	4.25	4.02
29	Grass	ERPU8	9	27	0.00	2.00	1.00	1.00
29	Grass	SPNE	9	27	1.00	22.00	11.50	10.50
30	Forb	CROTO	27	63	1.00	9.00	3.75	3.11
30	Forb	CRPO5	27	63	0.00	1.00	0.50	0.50
32	Forb	LEFE	27	63	0.00	1.00	0.50	0.50
34	Forb	AAFF	27	63	0.00	25.00	7.00	7.14
35	Forb	LEER	9	27	0.00	1.00	0.50	0.50
35	Forb	PENA	9	27	1.00	15.00	4.00	5.51
35	Forb	SOEL	9	27	0.00	4.00	1.83	1.34
37	Shrub	YUCCA	9	45	30.00	40.00	35.00	5.00
37	Tree	YUEL	9	45	0.00	3.00	2.00	1.22
41	Shrub	GUSA2	9	27	1.00	197.00	58.75	67.14
44	Shrub	PRGL2	9	27	10.00	71.00	28.25	24.96

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV



Production Lbs/Acre Trends

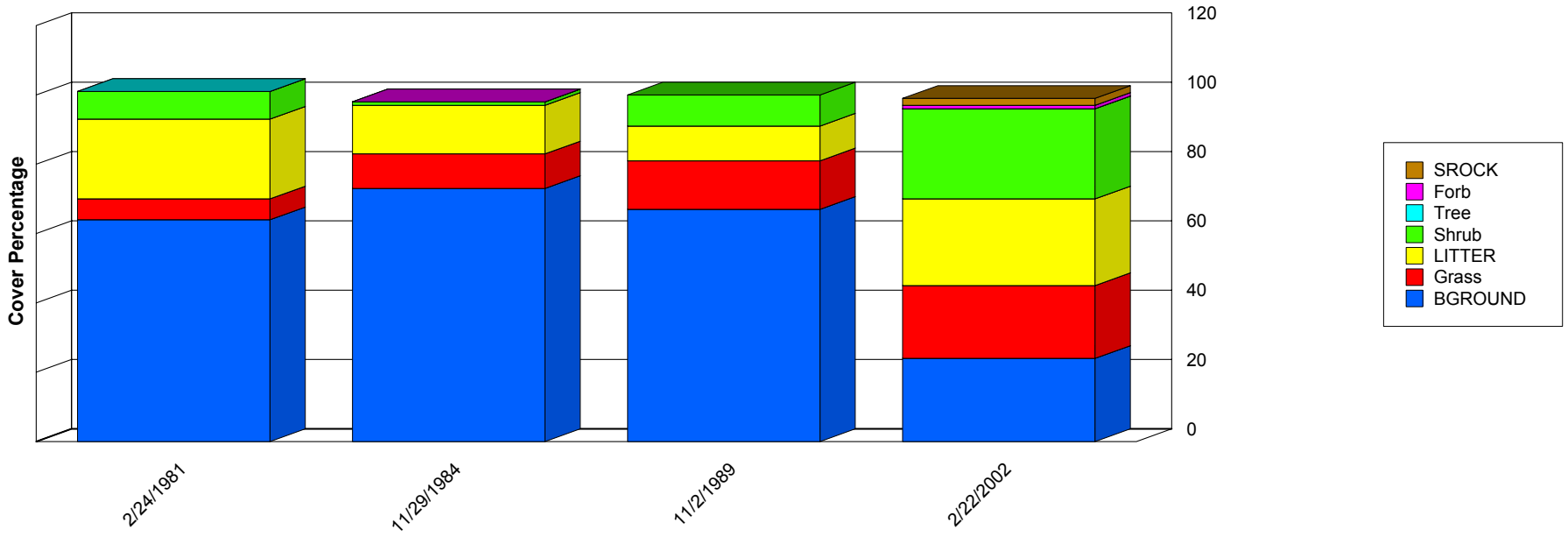


	10/31/1980	10/29/1981	10/20/1982	1/5/1984	11/26/1984	10/31/1989	11/15/1994	2/22/2002
Forb	**16.00**	**103.00**	**22.00**	**6.00**	**31.00**	**7.00**	**6.00**	**1.00**
Grass	**225.00**	**342.00**	**486.00**	**167.00**	**269.00**	**466.00**	**648.00**	**258.00**
Shrub	**13.00**	**189.00**	**197.00**	**8.00**	**103.00**	**87.00**	**33.00**	**26.00**
Tree	**3.00**	**0.00**	**0.00**	**3.00**	**2.00**	**0.00**	**0.00**	**0.00**
Total	**257.00**	**634.00**	**705.00**	**184.00**	**405.00**	**560.00**	**687.00**	**285.00**

Report Parameters

SITE NAME LIKE	65021-#4-D059
ON/AFTER	10/01/1980
ON/BEFORE	09/30/2002

Ground Cover Trends



	2/24/1981	11/29/1984	11/2/1989	2/22/2002
BGROUND	64.00	73.00	67.00	24.00
Forb	0.00	0.00	0.00	1.00
Grass	6.00	10.00	14.00	21.00
LITTER	23.00	14.00	10.00	25.00
Shrub	8.00	1.00	9.00	26.00
SROCK	0.00	0.00	0.00	2.00
Tree	0.00	0.00	0.00	0.00
Total	101.00	98.00	100.00	99.00

Report Parameters

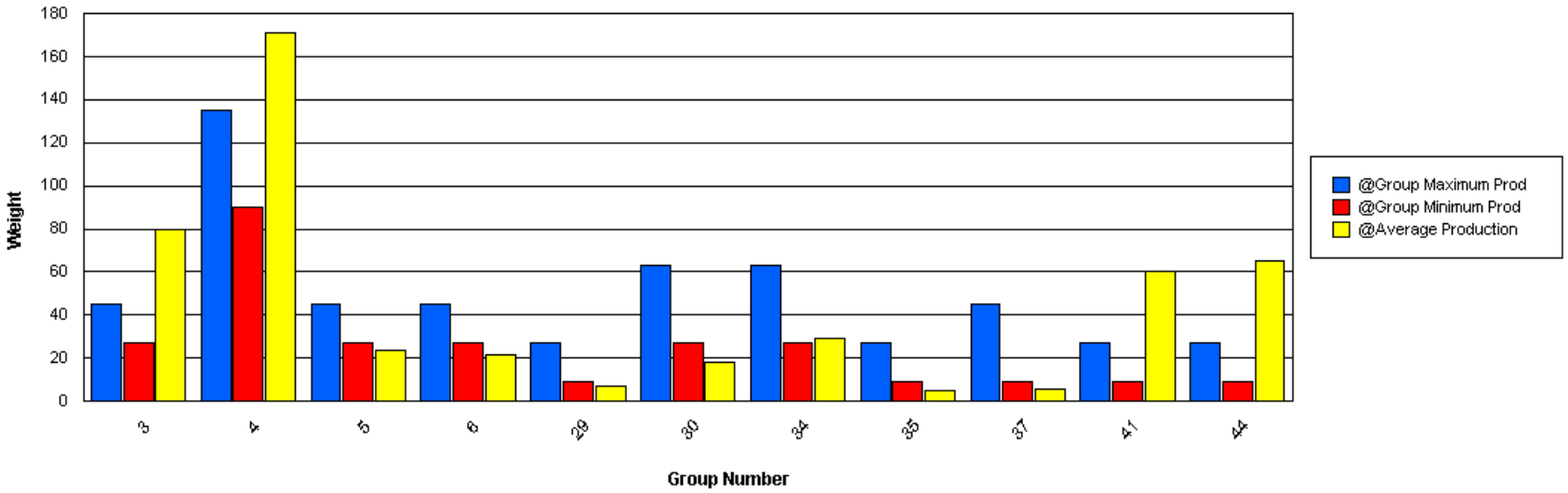
SITE NAME LIKE	65021-GRIFFEN EAST-D052
ON/AFTER	10/01/1980
ON/BEFORE	09/30/2002

Functional / Structural Groups

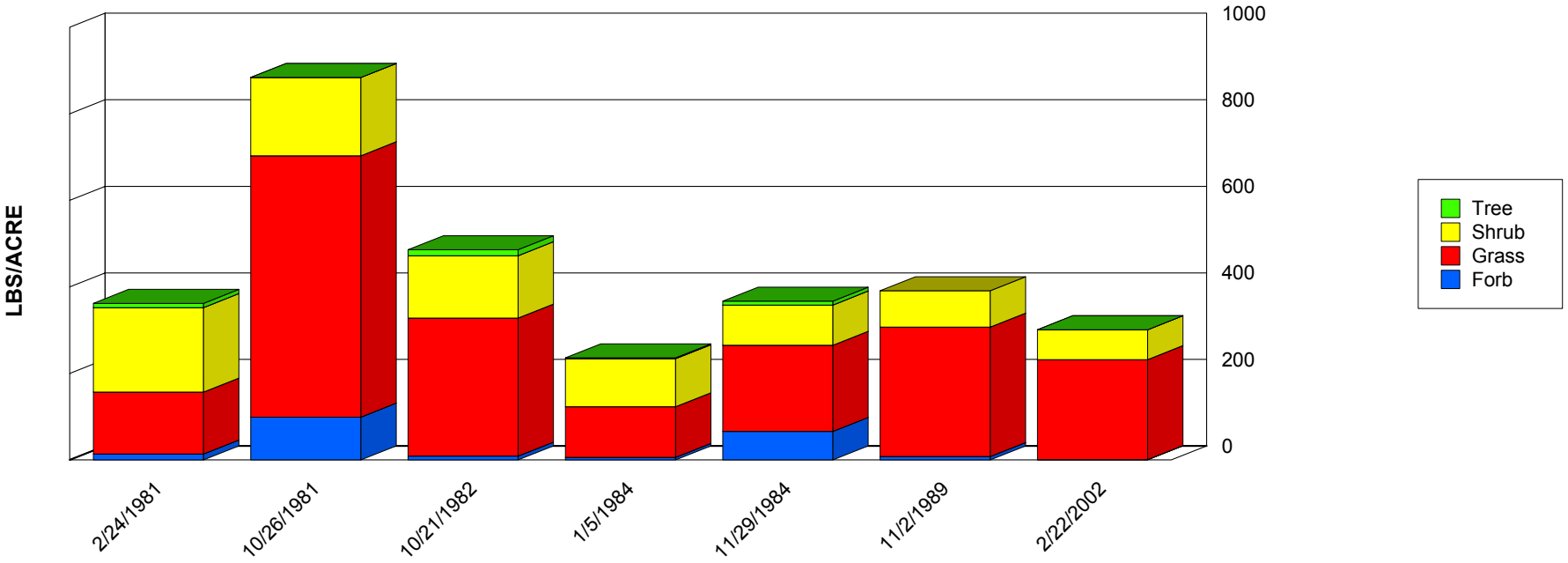
Report Parameters	
SITE NAME LIKE	65021-GRIFFEN EAST-D052
ON/AFTER	10/01/1980
ON/BEFORE	09/30/2002
MIN LBS TO GRAPH	3
SELECTED ECOSITE	042CY004NM

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
3	Grass	MUPO2	27	45	33.00	139.00	79.67	38.79
4	Grass	SPCO4	90	135	0.00	14.00	6.50	6.54
4	Grass	SPCR	90	135	0.00	351.00	123.83	131.80
4	Grass	SPFL2	90	135	0.00	103.00	40.83	37.41
5	Grass	ARIST	27	45	0.00	81.00	23.57	30.31
6	Grass	SEMA5	27	45	0.00	65.00	21.83	21.05
29	Grass	MUTO2	9	27	0.00	34.00	6.80	13.60
30	Forb	CROTO	27	63	0.00	14.00	5.43	5.07
30	Forb	CRPO5	27	63	0.00	25.00	12.50	12.50
34	Forb	AAFF	27	63	0.00	4.00	1.67	1.49
34	Forb	ERAN3	27	63	0.00	78.00	19.00	30.23
34	Forb	PECTI	27	63	0.00	16.00	8.00	8.00
34	Forb	XADR	27	63	0.00	1.00	0.50	0.50
35	Forb	ERIOG	9	27	0.00	7.00	1.75	3.03
35	Forb	LEPID	9	27	0.00	2.00	1.00	1.00
35	Forb	LOCO	9	27	0.00	2.00	1.00	1.00
35	Forb	PPFF	9	27	0.00	7.00	1.40	2.80
37	Tree	YUEL	9	45	0.00	14.00	5.83	5.43
39	Shrub	ATCA2	9	27	0.00	11.00	2.33	4.03
41	Shrub	ARFI2	9	27	0.00	97.00	37.14	29.25
41	Shrub	GUSA2	9	27	4.00	64.00	23.17	20.91
44	Shrub	CHRYS9	9	27	0.00	2.00	1.00	1.00
44	Shrub	PRGL2	9	27	26.00	170.00	64.43	53.56

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV



Production Lbs/Acre Trends

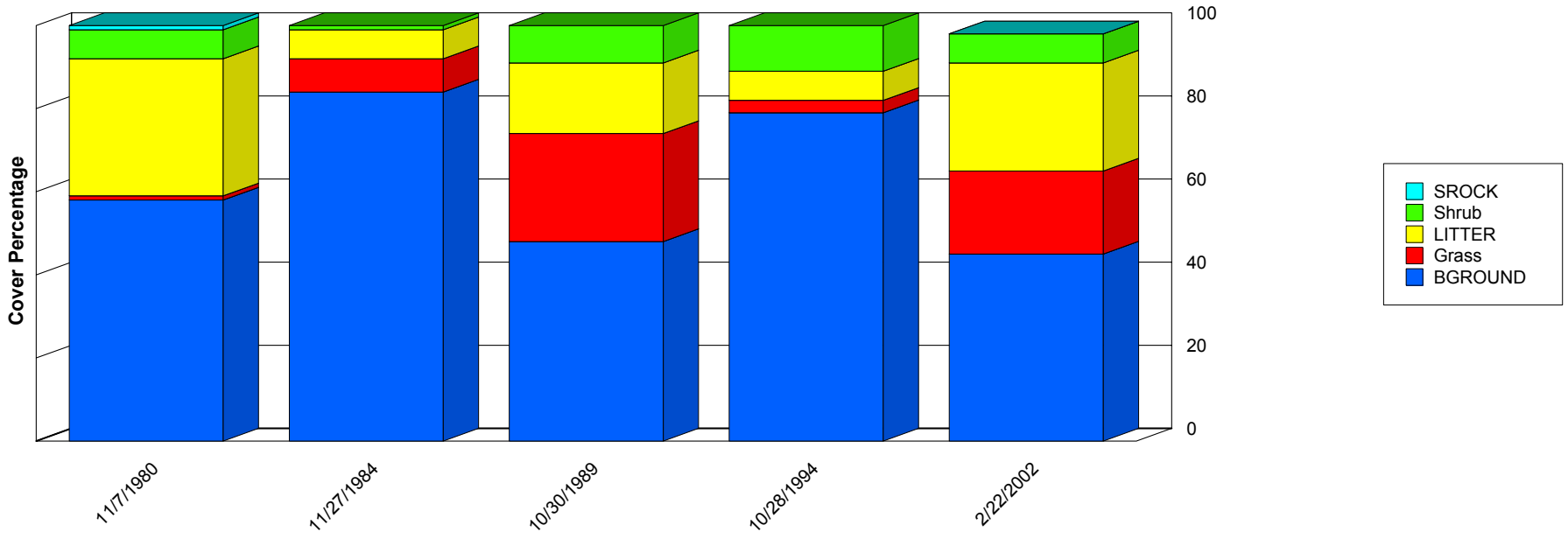


	2/24/1981	10/26/1981	10/21/1982	1/5/1984	11/29/1984	11/2/1989	2/22/2002
Forb	**14.00**	**99.00**	**9.00**	**6.00**	**66.00**	**8.00**	**1.00**
Grass	**143.00**	**604.00**	**319.00**	**117.00**	**199.00**	**299.00**	**231.00**
Shrub	**195.00**	**181.00**	**144.00**	**111.00**	**93.00**	**84.00**	**69.00**
Tree	**10.00**	**0.00**	**14.00**	**2.00**	**9.00**	**0.00**	**0.00**
Total	**362.00**	**884.00**	**486.00**	**236.00**	**367.00**	**391.00**	**301.00**

Report Parameters

SITE NAME LIKE	65021-GRIFFEN EAST-D052
ON/AFTER	10/01/1980
ON/BEFORE	09/30/2002

Ground Cover Trends



	11/7/1980	11/27/1984	10/30/1989	10/28/1994	2/22/2002
BGROUND	58.00	84.00	48.00	79.00	45.00
Grass	1.00	8.00	26.00	3.00	20.00
LITTER	33.00	7.00	17.00	7.00	26.00
Shrub	7.00	1.00	9.00	11.00	7.00
SROCK	1.00	0.00	0.00	0.00	0.00
Total	100.00	100.00	100.00	100.00	98.00

Report Parameters

SITE NAME LIKE	65021-HDQ-D062
ON/AFTER	10/01/1980
ON/BEFORE	09/30/2002

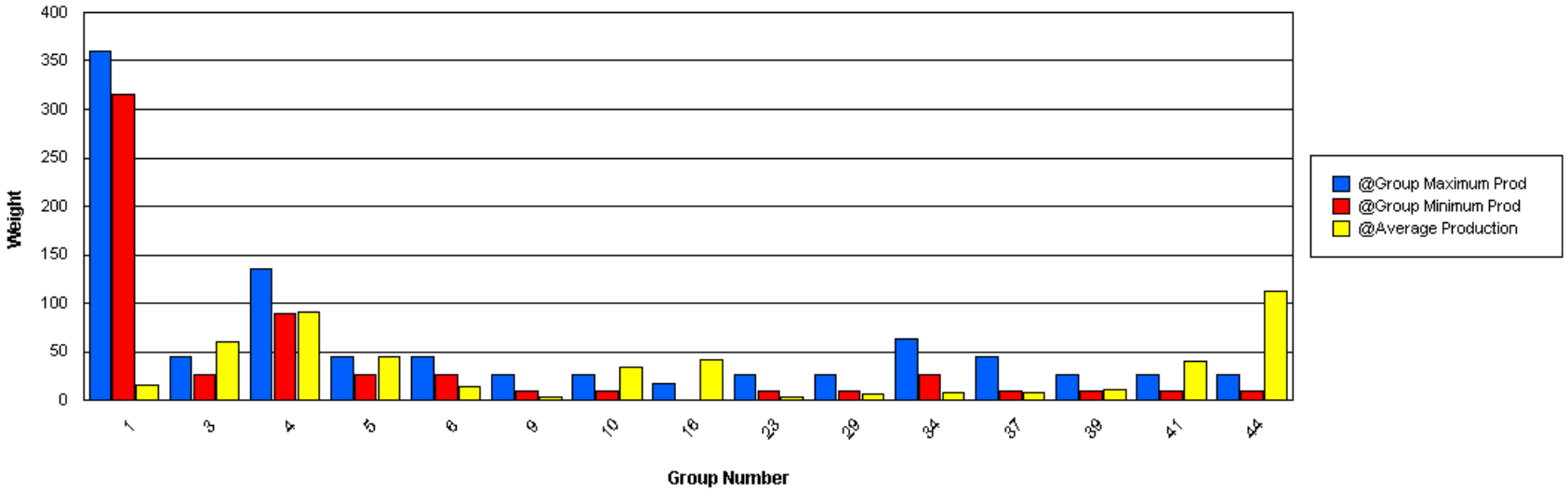
Functional / Structural Groups

Report Parameters

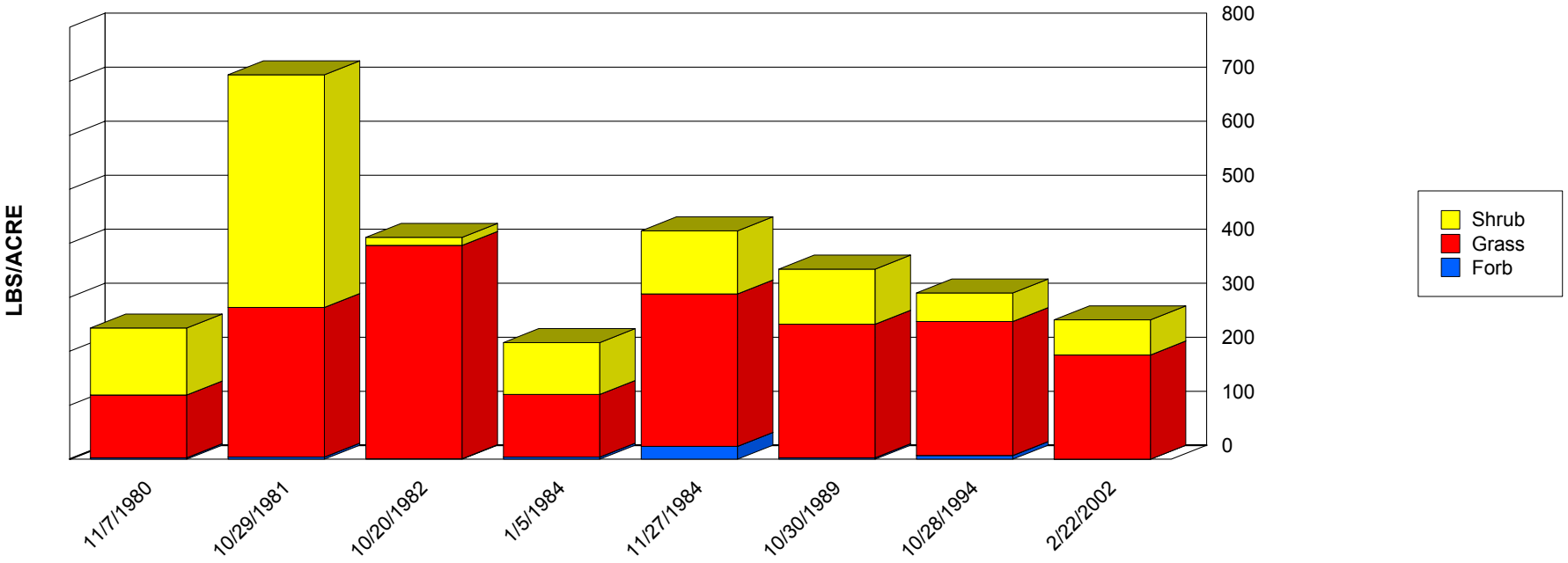
SITE NAME LIKE	65021-HDQ-D062
ON/AFTER	10/01/1980
ON/BEFORE	09/30/2002
MIN LBS TO GRAPH	3
SELECTED ECOSITE	042CY004NM

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
1	Grass	BOER4	315	360	6.00	35.00	15.33	10.87
2	Grass	BOGR2	45	90	0.00	3.00	2.00	1.41
3	Grass	MUPO2	27	45	15.00	137.00	60.14	36.92
4	Grass	SPCO4	90	135	8.00	18.00	12.33	4.19
4	Grass	SPCR	90	135	3.00	99.00	32.63	30.39
4	Grass	SPFL2	90	135	0.00	119.00	45.83	36.38
5	Grass	ARIST	27	45	0.00	124.00	45.25	42.01
6	Grass	SEMA5	27	45	0.00	47.00	13.75	19.38
9	Grass	PAOB	9	27	0.00	11.00	3.40	3.93
10	Grass	HIJA	9	27	0.00	24.00	9.00	10.68
10	Grass	HIMU2	9	27	17.00	33.00	25.67	6.60
16	Grass	BOBR	0	18	3.00	82.00	42.50	39.50
23	Grass	MUAR2	9	27	0.00	9.00	4.00	3.24
26	Grass	SCBR2	9	27	0.00	1.00	0.50	0.50
29	Grass	ERPU8	9	27	0.00	17.00	6.00	6.54
29	Grass	TRPI2	9	27	0.00	1.00	0.50	0.50
30	Forb	MELE2	27	63	0.00	4.00	1.25	1.64
32	Forb	LESQU	27	63	0.00	1.00	0.50	0.50
34	Forb	AAFF	27	63	0.00	11.00	3.00	3.42
34	Forb	DIWI	27	63	0.00	3.00	1.00	1.41
34	Forb	HEAN3	27	63	0.00	7.00	3.50	3.50
34	Forb	XADR	27	63	0.00	1.00	0.50	0.50
37	Shrub	YUCCA	9	45	7.00	8.00	7.50	0.50
39	Shrub	ATCA2	9	27	9.00	12.00	11.00	1.41
41	Shrub	GUSA2	9	27	1.00	108.00	40.57	42.74
44	Shrub	PRGL2	9	27	9.00	431.00	111.83	146.10

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV



Production Lbs/Acre Trends

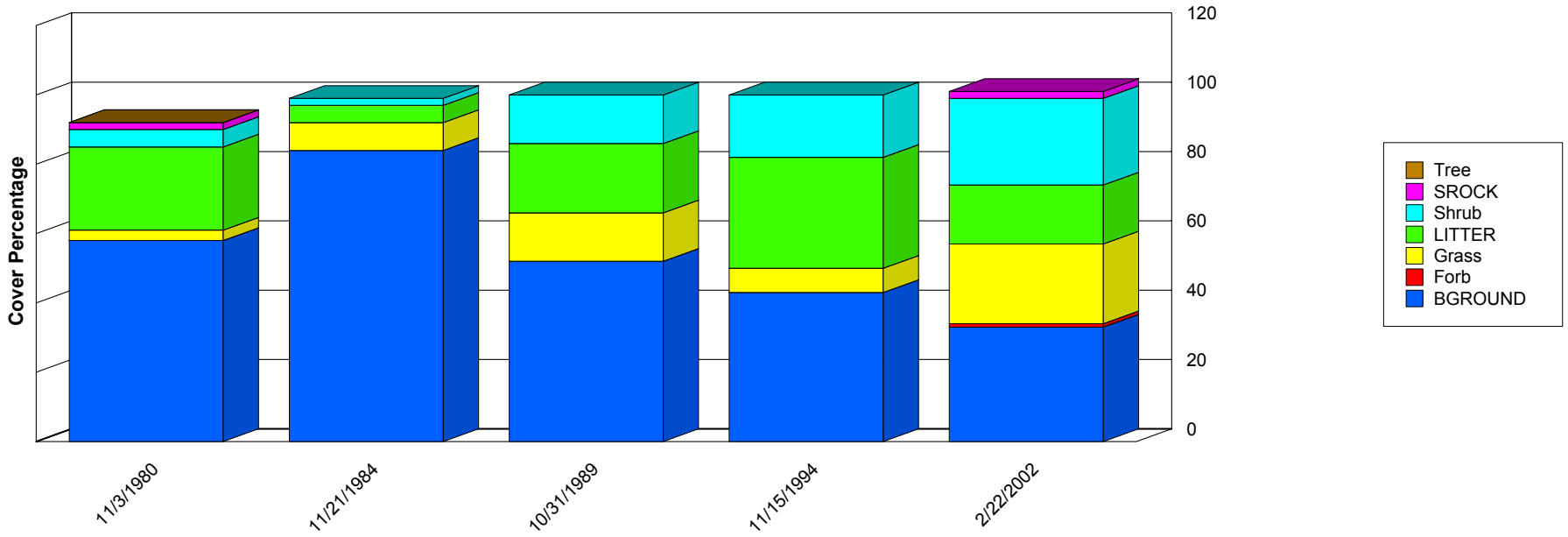


	11/7/1980	10/29/1981	10/20/1982	1/5/1984	11/27/1984	10/30/1989	10/28/1994	2/22/2002
Forb	**3.00**	**4.00**	**1.00**	**4.00**	**24.00**	**3.00**	**7.00**	**0.00**
Grass	**116.00**	**277.00**	**395.00**	**116.00**	**282.00**	**247.00**	**248.00**	**193.00**
Shrub	**124.00**	**431.00**	**15.00**	**96.00**	**117.00**	**102.00**	**53.00**	**65.00**
Total	**243.00**	**712.00**	**411.00**	**216.00**	**423.00**	**352.00**	**308.00**	**258.00**

Report Parameters

SITE NAME LIKE	65021-HDQ-D062
ON/AFTER	10/01/1980
ON/BEFORE	09/30/2002

Ground Cover Trends



	11/3/1980	11/21/1984	10/31/1989	11/15/1994	2/22/2002
BGROUND	58.00	84.00	52.00	43.00	33.00
Forb	0.00	0.00	0.00	0.00	1.00
Grass	3.00	8.00	14.00	7.00	23.00
LITTER	24.00	5.00	20.00	32.00	17.00
Shrub	5.00	2.00	14.00	18.00	25.00
SROCK	2.00	0.00	0.00	0.00	2.00
Tree	0.00	0.00	0.00	0.00	0.00
Total	92.00	99.00	100.00	100.00	101.00

Report Parameters

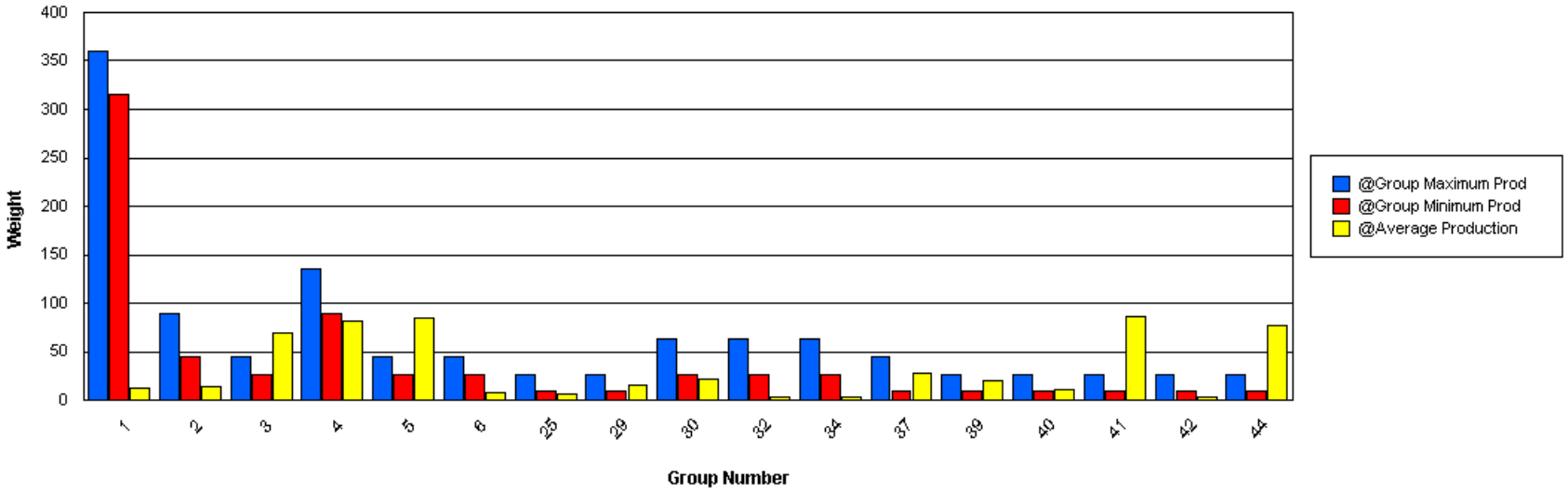
SITE NAME LIKE	65021-N. BREAKS-D060
ON/AFTER	10/01/1980
ON/BEFORE	09/30/2002

Functional / Structural Groups

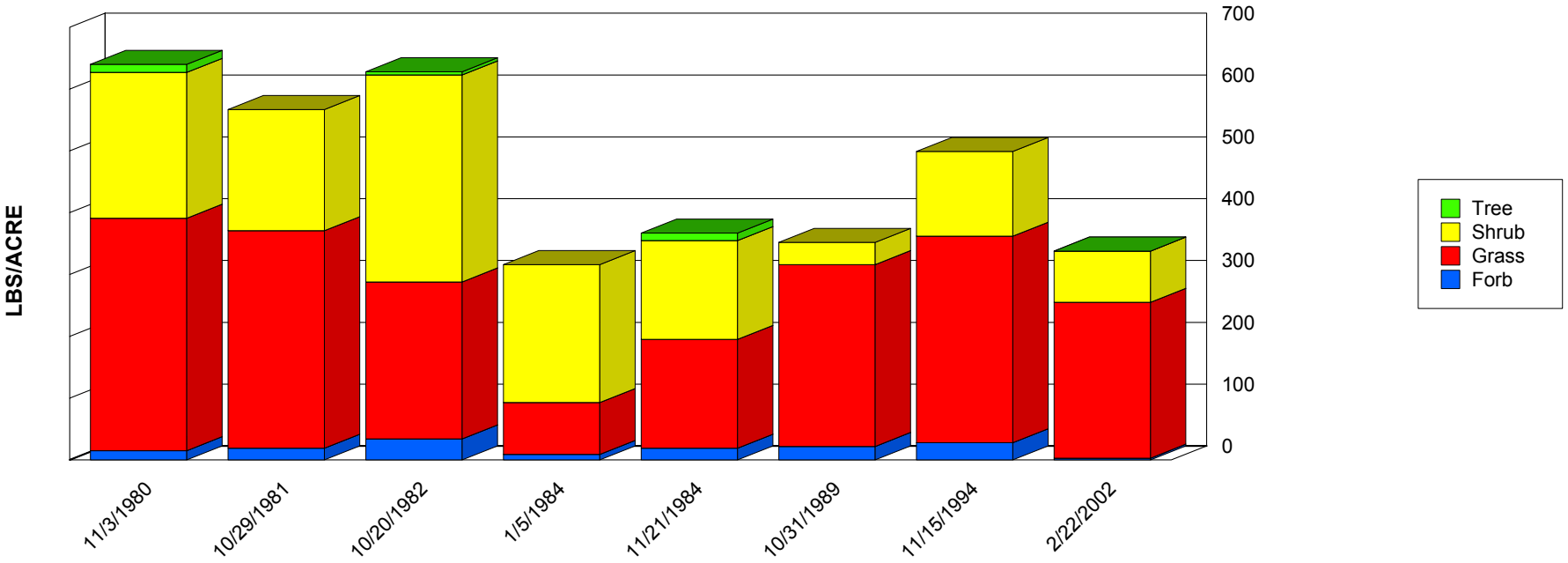
Report Parameters	
SITE NAME LIKE	65021-N. BREAKS-D060
ON/AFTER	10/01/1980
ON/BEFORE	09/30/2002
MIN LBS TO GRAPH	3
SELECTED ECOSITE	042CY004NM

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
1	Grass	BOER4	315	360	4.00	29.00	13.00	10.27
2	Grass	BOGR2	45	90	0.00	46.00	14.40	16.66
3	Grass	MUPO2	27	45	9.00	153.00	70.14	44.98
4	Grass	SPCO4	90	135	6.00	43.00	19.75	13.94
4	Grass	SPCR	90	135	6.00	53.00	25.63	16.32
4	Grass	SPFL2	90	135	20.00	51.00	36.80	10.30
5	Grass	ARIST	27	45	0.00	218.00	84.25	66.03
6	Grass	SEMA5	27	45	0.00	20.00	8.40	8.40
25	Grass	PARA2	9	27	0.00	21.00	7.00	8.22
29	Grass	ERPU8	9	27	2.00	32.00	15.67	12.39
30	Forb	CROTO	27	63	8.00	22.00	15.17	5.18
30	Forb	CRPO5	27	63	0.00	12.00	6.00	6.00
30	Forb	MELE2	27	63	0.00	1.00	0.75	0.43
32	Forb	LESQU	27	63	0.00	9.00	3.33	4.03
34	Forb	AAFF	27	63	0.00	6.00	2.83	2.41
34	Forb	ERAN3	27	63	0.00	1.00	0.50	0.50
35	Forb	DYPE2	9	27	1.00	3.00	2.00	0.82
37	Shrub	YUCCA	9	45	15.00	30.00	20.33	6.85
37	Tree	YUEL	9	45	0.00	13.00	7.50	5.32
39	Shrub	ATCA2	9	27	18.00	22.00	19.67	1.70
40	Shrub	COER5	9	27	5.00	17.00	10.50	4.77
41	Shrub	GUSA2	9	27	8.00	248.00	86.63	71.97
42	Shrub	DAFO	9	27	2.00	5.00	3.67	1.25
44	Shrub	PRGL2	9	27	18.00	162.00	77.14	49.36

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV



Production Lbs/Acre Trends

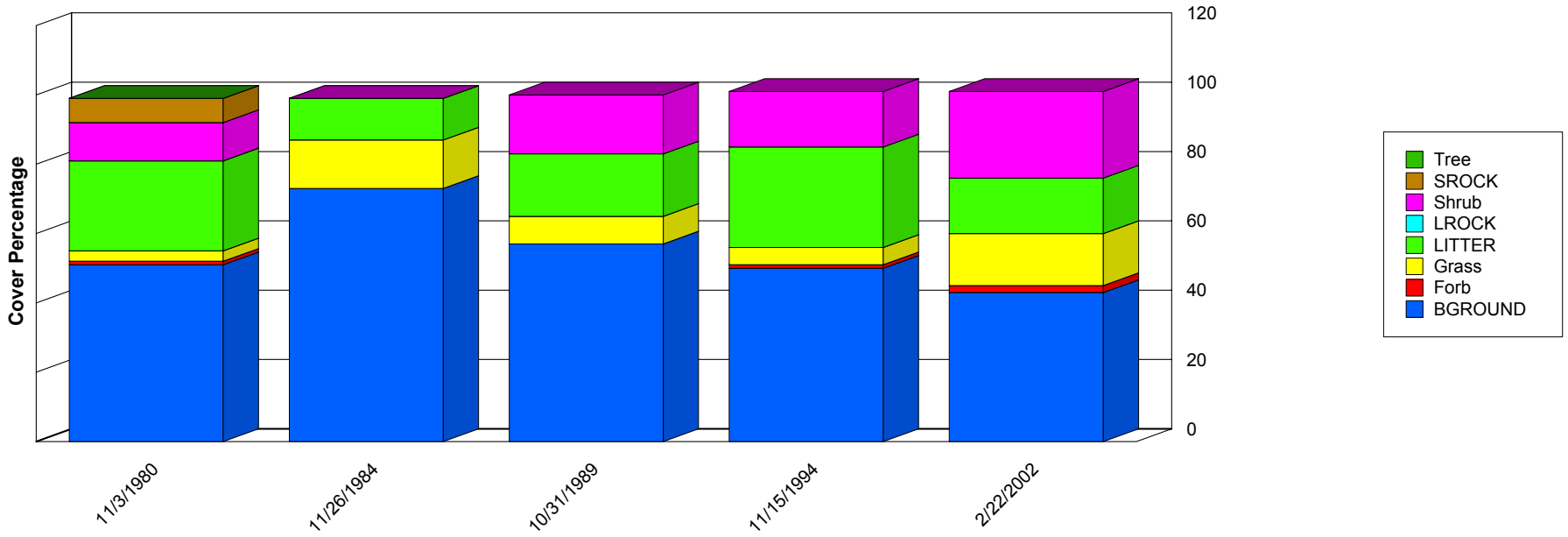


	11/3/1980	10/29/1981	10/20/1982	1/5/1984	11/21/1984	10/31/1989	11/15/1994	2/22/2002
Forb	**15.00**	**19.00**	**34.00**	**9.00**	**19.00**	**22.00**	**28.00**	**3.00**
Grass	**376.00**	**352.00**	**254.00**	**84.00**	**176.00**	**294.00**	**334.00**	**252.00**
Shrub	**236.00**	**196.00**	**335.00**	**223.00**	**160.00**	**36.00**	**137.00**	**83.00**
Tree	**13.00**	**0.00**	**5.00**	**0.00**	**12.00**	**0.00**	**0.00**	**0.00**
Total	**640.00**	**567.00**	**628.00**	**316.00**	**367.00**	**352.00**	**499.00**	**338.00**

Report Parameters

SITE NAME LIKE	65021-N. BREAKS-D060
ON/AFTER	10/01/1980
ON/BEFORE	09/30/2002

Ground Cover Trends



	11/3/1980	11/26/1984	10/31/1989	11/15/1994	2/22/2002
BGROUND	51.00	73.00	57.00	50.00	43.00
Forb	1.00	0.00	0.00	1.00	2.00
Grass	3.00	14.00	8.00	5.00	15.00
LITTER	26.00	12.00	18.00	29.00	16.00
LROCK	0.00	0.00	0.00	0.00	0.00
Shrub	11.00	0.00	17.00	16.00	25.00
SROCK	7.00	0.00	0.00	0.00	0.00
Tree	0.00	0.00	0.00	0.00	0.00
Total	99.00	99.00	100.00	101.00	101.00

Report Parameters

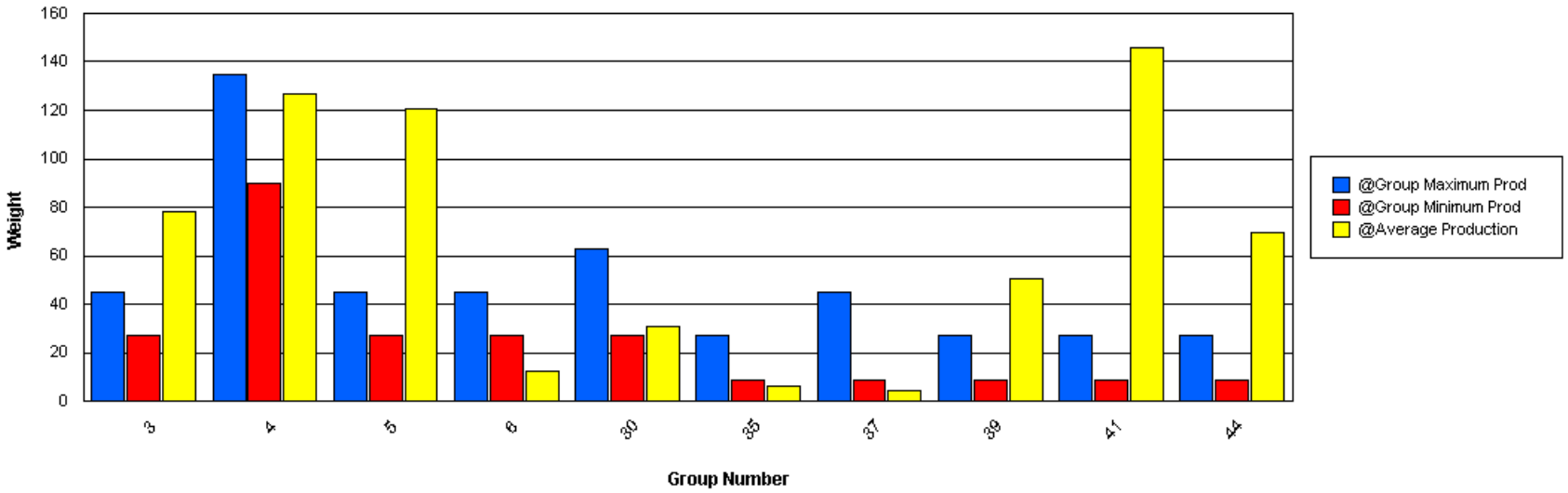
SITE NAME LIKE	65021-S. BREAKS-D061
ON/AFTER	10/01/1980
ON/BEFORE	09/30/2002

Functional / Structural Groups

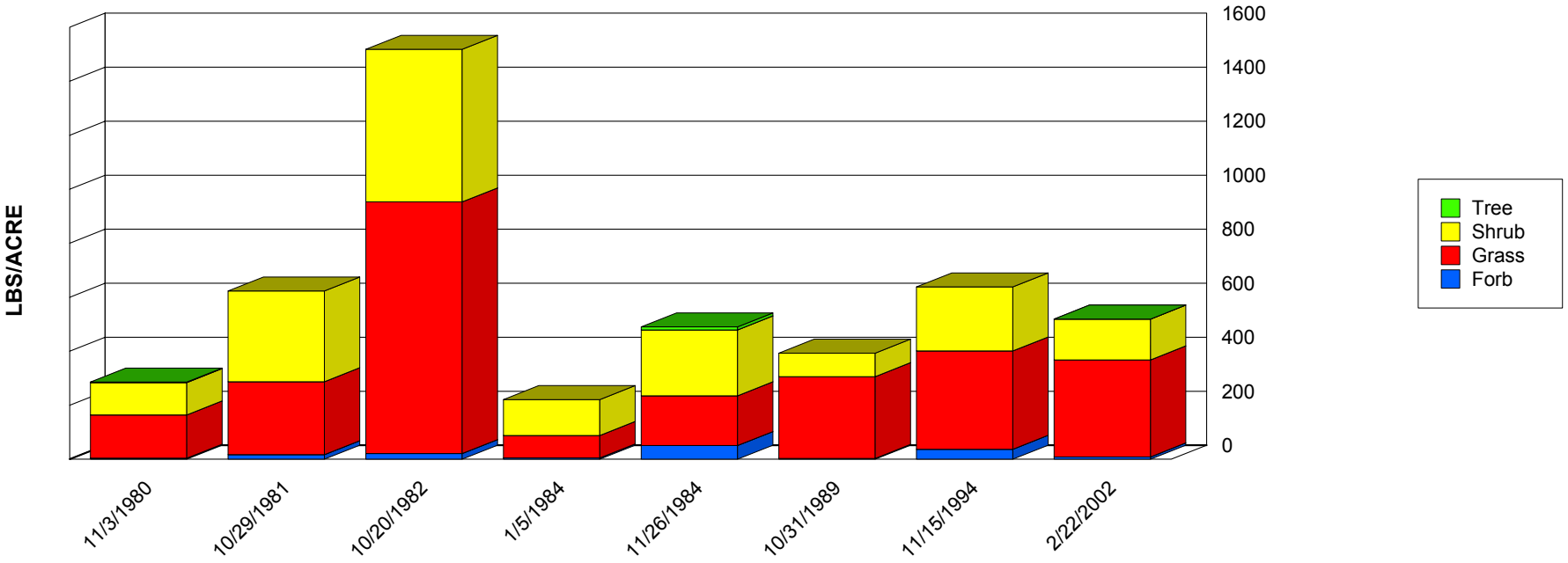
Report Parameters	
SITE NAME LIKE	65021-S. BREAKS-D061
ON/AFTER	10/01/1980
ON/BEFORE	09/30/2002
MIN LBS TO GRAPH	3
SELECTED ECOSITE	042CY004NM

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
3	Grass	MUPO2	27	45	7.00	269.00	78.25	82.13
4	Grass	SPCO4	90	135	0.00	26.00	14.20	9.13
4	Grass	SPCR	90	135	7.00	150.00	53.00	55.12
4	Grass	SPFL2	90	135	0.00	233.00	59.57	73.82
5	Grass	ARIST	27	45	0.00	680.00	120.75	214.38
6	Grass	SEMA5	27	45	0.00	28.00	12.17	9.92
12	Grass	LECO	9	27	1.00	3.00	2.00	1.00
30	Forb	CROTO	27	63	3.00	35.00	14.00	11.93
30	Forb	CRPO5	27	63	0.00	34.00	17.00	17.00
34	Forb	AAFF	27	63	0.00	6.00	1.50	2.06
35	Forb	ERIOG	9	27	0.00	11.00	5.50	5.50
35	Forb	SOEL	9	27	1.00	1.00	1.00	0.00
37	Tree	YUEL	9	45	0.00	11.00	4.33	4.78
39	Shrub	ATCA2	9	27	0.00	214.00	50.29	68.79
41	Shrub	ARFI2	9	27	3.00	149.00	47.00	52.54
41	Shrub	GUSA2	9	27	2.00	185.00	99.00	67.85
44	Shrub	PRGL2	9	27	10.00	206.00	68.71	64.25
44	Shrub	SENEC2	9	27	0.00	2.00	1.00	1.00

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV



Production Lbs/Acre Trends



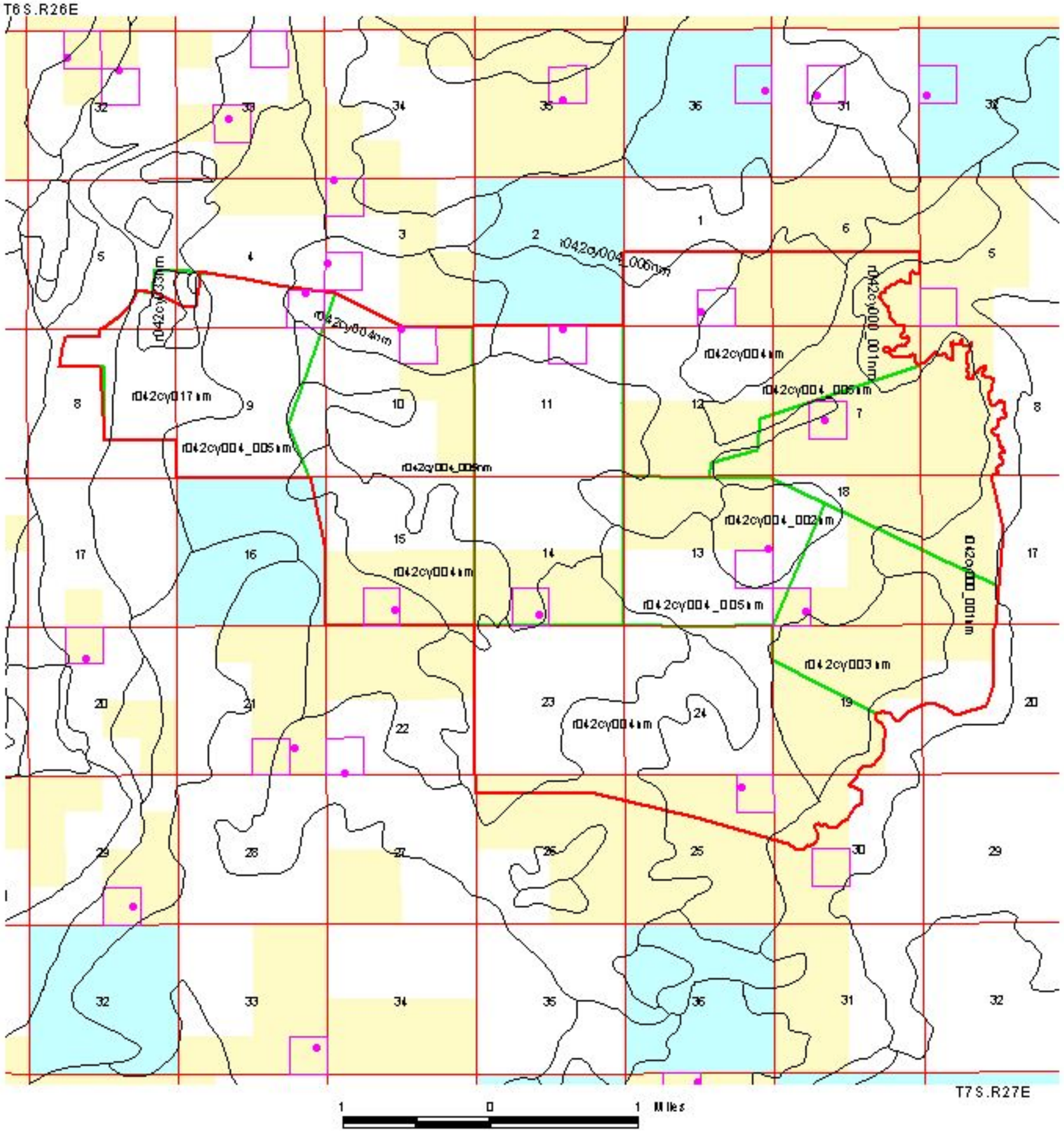
	11/3/1980	10/29/1981	10/20/1982	1/5/1984	11/26/1984	10/31/1989	11/15/1994	2/22/2002
Forb	**4.00**	**17.00**	**21.00**	**5.00**	**51.00**	**3.00**	**37.00**	**9.00**
Grass	**160.00**	**270.00**	**932.00**	**83.00**	**184.00**	**303.00**	**364.00**	**359.00**
Shrub	**120.00**	**336.00**	**565.00**	**133.00**	**244.00**	**87.00**	**237.00**	**151.00**
Tree	**2.00**	**0.00**	**0.00**	**0.00**	**11.00**	**0.00**	**0.00**	**0.00**
Total	**286.00**	**623.00**	**1,518.00**	**221.00**	**490.00**	**393.00**	**638.00**	**519.00**

Report Parameters

SITE NAME LIKE	65021-S. BREAKS-D061
ON/AFTER	10/01/1980
ON/BEFORE	09/30/2002

Rangeland Health Assessment
Ecological Sites

Allotment 65021

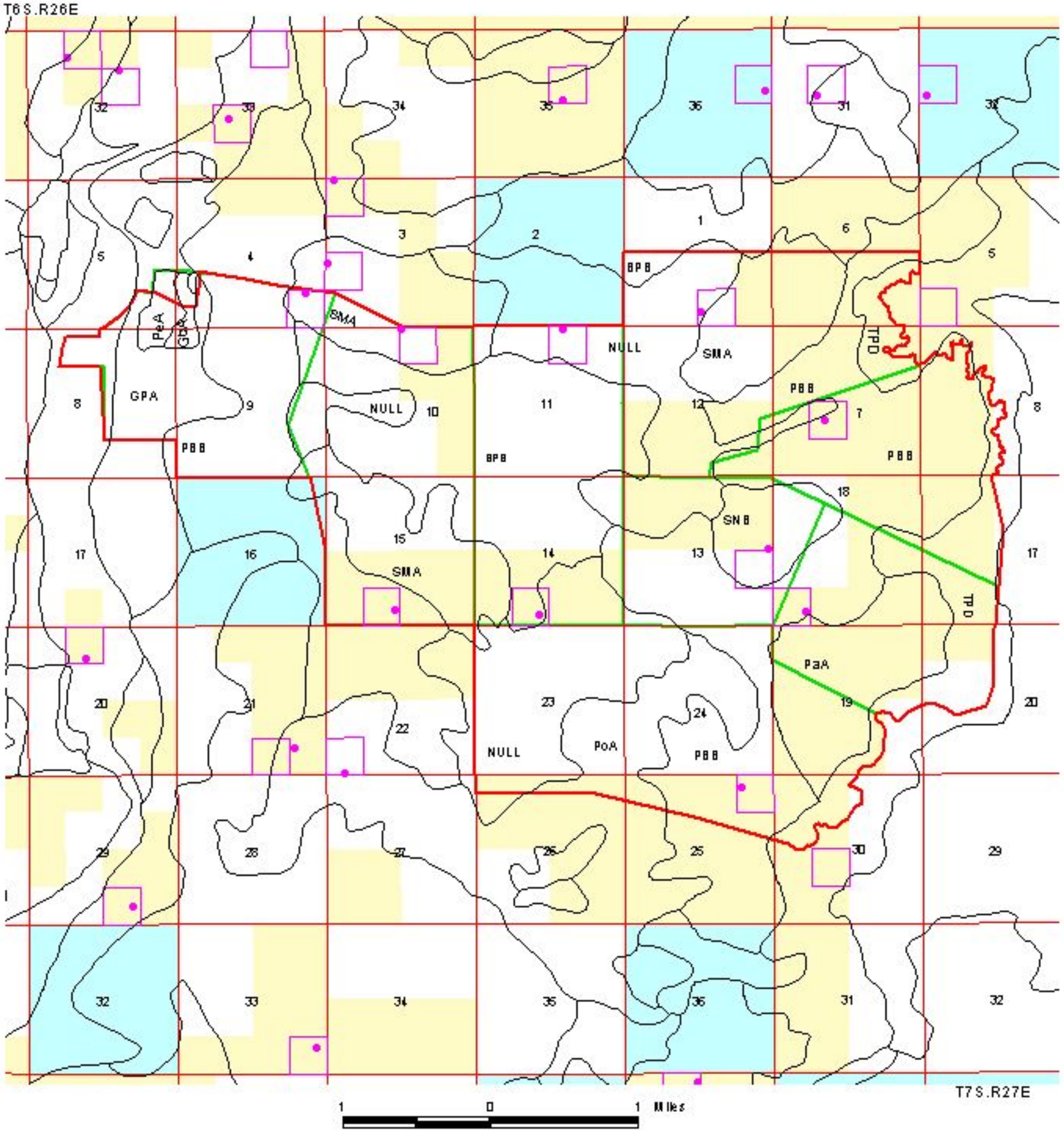


Public
State
Study Locations
Private
Study Plots
Pasture Boundary
Ecological Sites
Allotment Boundary

Produced by the Roswell Field Office
GIS Intern on July 3, 2003.

Rangeland Health Assessment
Soil Mapping Units

Allotment 65021



Public
State
Study Locations
Private
Study Plots
Pasture Boundary
Soil Mapping Units
Allotment Boundary

Produced by the Roswell Field Office
GIS Intern on July 3, 2003.